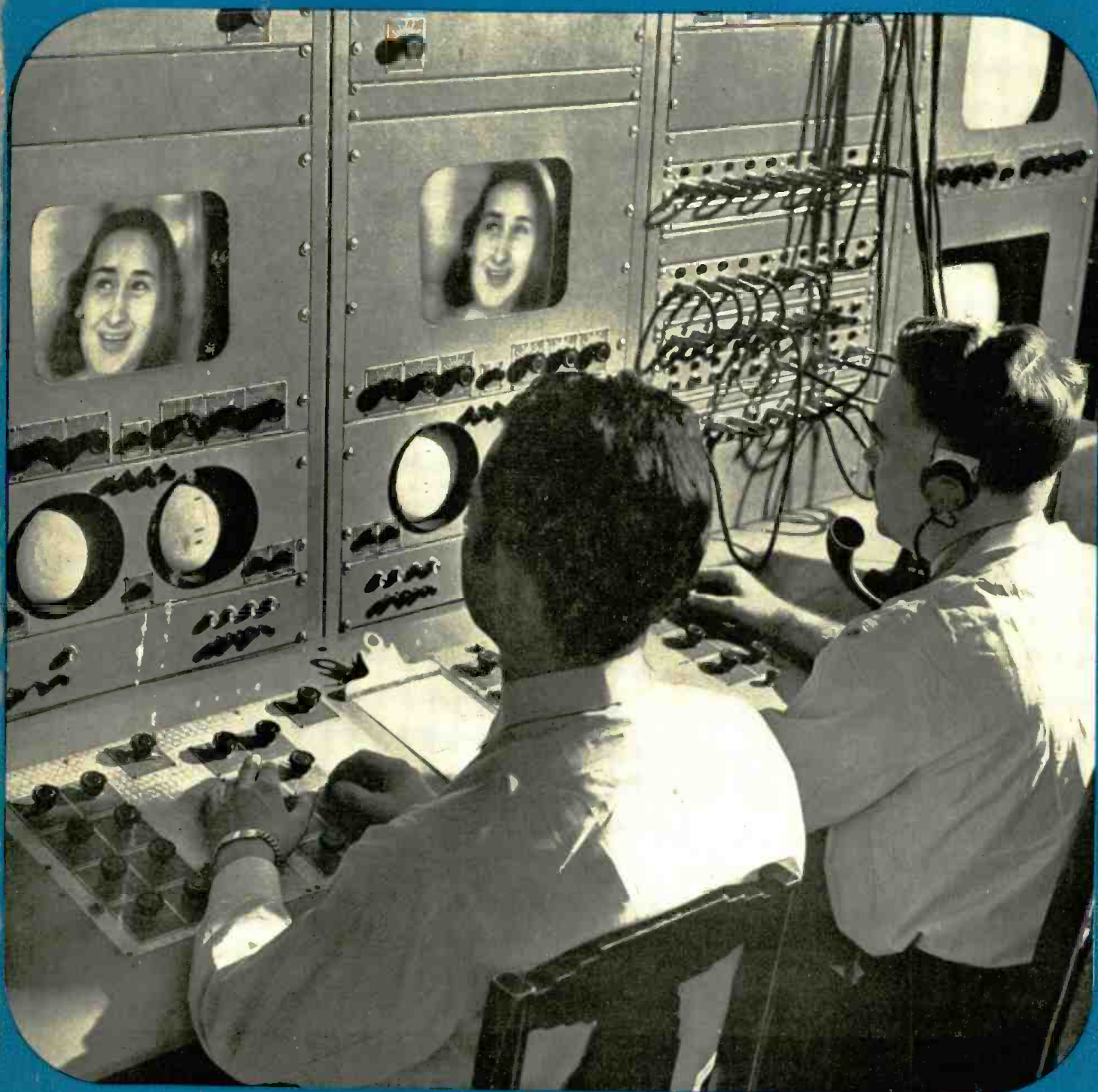


Televiser

JOURNAL OF VIDEO PRODUCTION, ADVERTISING & OPERATION



In This Issue: 54 ARTICLES AND SPECIAL FEATURES;
OVER 50 PHOTOGRAPHS AND DRAWINGS

IN

TELEVISION

BROADCASTING...

RCA pioneered the development of electronic television.

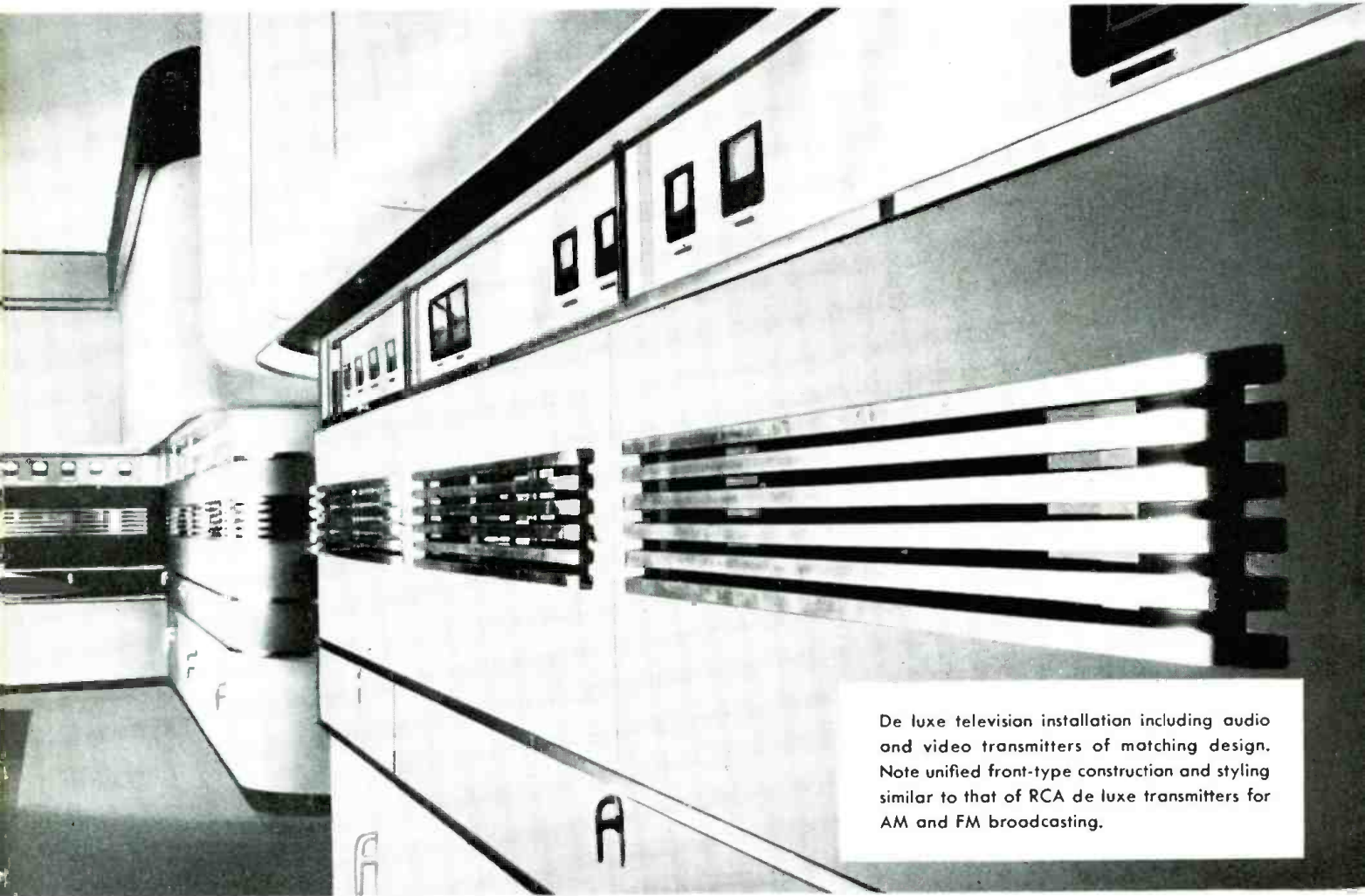
RCA engineers developed the Iconoscope, the Kinescope and the Orthicon, as well as circuits for their use.

NBC, a member of the RCA family, operates a commercial television station which has pioneered program development—a station whose programs are rebroadcast by other stations.

RCA had developed a full line of commercial television transmitting equipment before the war and had offered it to broadcasters.

RCA is now utilizing its engineering experience by building for the armed forces a large quantity of equipment.

RCA will be prepared to offer for postwar service a full line of new and improved television equipment, including studio equipment, film equipment, portable equipment, relay equipment, studio-transmitter-link equipment, and, of course, audio and video transmitters.



De luxe television installation including audio and video transmitters of matching design. Note unified front-type construction and styling similar to that of RCA de luxe transmitters for AM and FM broadcasting.

RCA installations now in operation

The de luxe-type installation shown above is one of several RCA Television Transmitters installed before the war.

All of these installations are standard transmitter models, designed and constructed to broadcast specifications and installed for regular television stations.

They are in addition to a number of experimental and relay-type television installations made by RCA as part of its own television development program.

RCA's experience in this field is unequalled.

RCA BROADCAST EQUIPMENT

BUY MORE WAR BONDS



RADIO CORPORATION OF AMERICA

RCA VICTOR DIVISION • CAMDEN, N. J.

Televiser

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NEEDED: Good Programming

by JAMES LAWRENCE FLY
Federal Communications Commission

Commercial television has had a green light ever since June 30, 1941. Except for the war and its demands on materials and manpower, television is still moving ahead. And directly as a result of the war, radio research has leapt forward. Television has advanced in a few years to a level which it probably would not have reached in normal times in under ten or fifteen years. Now, we have not only the promise but the certainty of a greatly improved television, when materials again become available for radio construction. laid down to speed the new television.

The report of the Radio Technical Planning Board Television Panel, the recommendations of the Inter-department Radio Advisory Committee and the positions taken by various groups within the industry on television are known. On September 28 right here at the Commission, hearings were begun on the tremendous problem of where to house the more than 20 radio services in a greatly expanded postwar spectrum. The next several months should see the ether lanes mapped out and the traffic regulations laid down to speed the new television on its way.

And there is no doubt about it, thousands of people are looking forward to television. Because of the insatiable appetite of the American public for good entertainment, I see no reason why the movies, legitimate theatre, aural radio and televisions shouldn't all live in amity and profit together.

But because television is the newcomer, it has the burden of proving itself worthy to live in the magic circle. The public has been told to expect great things of television, and they are expecting great things. Those of us who want television to keep going over big after the initial glamor is past, know there is still a job to be done. Television producers have perhaps the most difficult assignment. If there's one precept more important than others, it seems to me, it is: "Set and keep your program standards high."

Fortunately, for those who pay the bills and those who wrestle with program-

(Continued on page 15)

TONY FERREIRA
Staff Assistant

JERRY SALTSBERG
Staff Photographer

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I: PROGRAMMING AND PRODUCTION



Singers Perform Before the NBC Cameras in A Recent Televised Version of "La Boheme."

How To Get Television Experience NOW!

By IRWIN A. SHANE

A FREQUENT question, posed by persons on the outside of television looking in, often goes like this: "Can I get in on the ground floor of television now, instead of waiting for the war to end?"

Often a department store executive will write: "Our store plans television in the immediate postwar period. Can our executives get the training and experience they need without waiting until we get our equipment?"

An advertising agency man will write: "Many of our clients are interested in television. Can we get experience in television now so that we can advise our clients more intelligently?"

The answer is: "Television training and experience can be obtained *now*." Numerous agencies, department stores and individuals have already gained actual studio experience, have presented live shows, have learned what makes good television. One advertising agency already has more than 50 shows under its belt.

How is television training and experience to be obtained?

First, through "seminar" courses such as given recently by the Radio Executives Club of New York, to give you an overall view of the television picture. Then there are specialized courses in production, such as the ones given by New York University, City College of New York, The New School, Yale Drama School, Iowa University, Purdue and the University of Southern California, to help you master the fundamentals of programming and give you a fairly good idea of what makes television tick.

(As time marches on, more and more professional schools will, no doubt, offer television courses. Just as there are now schools of law, medicine, architecture, drama, etc., schools of television will, no doubt, come into existence. There are already several schools for television technicians.)

The best schools are the television stations themselves. Here you can get studio experience under actual conditions. It should not be implied, however, that the nation's nine television stations offer courses. If they did, they'd have little time for anything else.

However, by visiting those stations, first as an observer, and eventually as a would-be producer, you will gain the experience you desire. Here's how to go about it.

First, write to the manager of the station nearest you for permission to visit the studio. If you live near New York, you can try all three: DuMont, Station WABD, 515 Madison Avenue; the CBS Station, WCBW, 15 Vanderbilt Avenue; the NBC Station, WNBT, Radio City.

If you live in New England or in the Albany-Buffalo area, there is Station WRGB at Schenectady. If you live near Philadelphia, there's Station WPTZ, operated by Philco. In the middlewest, there's Station WBKB—Balaban & Katz, and Station WTRZ, Zenith, in Chicago. On the west coast, there are Stations W9XYZ, operated by Paramount, and Station KTSL operated by the Don Lee System, both in Los Angeles.

If you are an agency, department store or radio station executive, you will encounter little or no difficulty, especially at Station WABD-DuMont, Station WRGB in Schenectady or Station WBKB in Chicago, where visits by interested persons are encouraged.

Then plan to spend as much time as occasional visits and vacations will permit you, observing and learning all you can of television techniques, use of color, backgrounds, acting, lights, props and

directing, being careful not to intrude upon any of the regular operations of the station.

While you are there, watch each production very carefully, observing the good and bad features of every show, with special attention to the camera work . . . the relative effectiveness of long shots and close-ups, of lap-dissolves, dolly-shots, panoramic shots and special effects.

In a few stations, you may have an opportunity to watch the director at work in the control room, where the show is put together before it goes out on the air.

After you have made arrangements to visit a television station, it is advisable to read as much as you can about television well in advance of your visit, so you'll have a better understanding of what takes place. Recommended books are: "4000 Years of Television" by Dick Hubbell; "Television Broadcasting" by Major Lohr; "We Present Television" by Porterfield.

After your initial visit to the television studio, go to the movies often. Analyse each show; observe how the director uses his cameras to point up certain scenes and to sustain interest. Note how the show unreels. Pay attention to methods used in presenting titles, background music, etc.

GETTING ACTUAL EXPERIENCE

By this time you should have absorbed some ideas regarding the requirements of television. Now how to gain actual studio experience?

If you're an agency executive, see the manager of your nearest station and arrange for air time for one, two or three shows, each lasting about fifteen minutes.

After you have completed these arrangements, begin to plan your programs, keeping them as simple and brief as possible. You might do a fashion show, or a variety show, or a simple little drama, with not more than three characters.

After you have prepared the script, show it to the station manager who will assign a director to your show. The director will check the script, suggesting changes that should be made.

When the script has been approved, you are ready to cast. Choose your players very carefully, selecting persons who are neither too tall or too short, with regular features and dark hair. (Blondes cause an electronic disturbance!)

For your first show you need not worry

about settings or costumes. After you've acquired some experience, you'll be in a better position to know the requirements of the new medium.

During the studio rehearsal, before the cameras, make careful note of how the director sets your stage, of the many changes he makes as the rehearsal progresses. While this is going on, don't do anything which may distract the director, or offer suggestions—they may prove contrary to good television. Let the director work out his problems without your advice.

When your show is finally presented, arrange to view it from the control room—if possible. Should you be fortunate enough to do so, listen intently to the instructions given by the director over the inter-communication system to the camera-men, sound technicians, light men, and studio director, who all wear headphones.

During the actual telecast, you will probably be too absorbed by what's going on to make notes on what transpires. Make mental notes, however, of questions you want to ask the director, of flaws in the production and how they may be improved, of the whys and wherefores of the camera work and the many other details that come to your attention.

With each show you will gain much valuable experience, and by the time your twelfth show rolls around, you should have a fairly good conception of what constitutes a good television program.

By that time you will probably be able to direct your own shows. If not, don't be discouraged as there are many persons in television who are not capable di-

rectors after dozens of shows. Eventually, you will become so familiar with television techniques and with the television cameras that producing and directing good television shows will become second nature—more a matter of good performers than a technical problem.

When you have gained actual studio experience, you will be ready to train others in your store or agency in the preparation of acceptable television scripts, in proper casting, selection of suitable material for programming, commercials, etc.

The next step now is to build a television rehearsal "studio," "laboratory" or "workshop." Furnish it with a few simple props. Indicate your stages, duplicating the lay-out of the master studio as far as possible. Furnish it with a baby grand piano and a record player. Photographer's floods can serve as lights.

Then have constructed for your "workshop" two dummy cameras, mounted on dollies. These can be constructed of plywood.

When your workshop has been set-up, you can conduct your auditions or try-outs here, as well as actual rehearsals. It will give to your department a feeling of professionalism and will prove invaluable in training store or agency personnel in television.

You are now ready to embark on a professional career as producer-director of television. Good luck to you!

Jay Strong and Twelve Pretty "Zodiac" Girls on the "Star-Dust" Astrology Program Presented by Norman D. Waters & Associates Advertising Agency.



After 4000 Years—

TELEVISION

Comes of Age

TELEVISION has had its periods of growth. It's infancy was long and drawn out. It was born 4000 years ago in the dim ages of history with smoke signals and the tom-tom drums. Discoveries during the middle ages accelerated its development, but not until the 18th century was any progress made.

Its true adolescent period didn't begin until the many inventions, now known to every American, were well established: electric lights, the telephone, telegraph and movie camera. It was a period as changeable and upsetting as a child's adolescence. Full of trial and error, discouragements and progress, it expanded with such names molding and forming it as Nipkow, Zworykin, Baird, Farnsworth, DeForest, DuMont and many others.

Then suddenly in 1925 it showed signs of approaching maturity. For within three months of each other England and America made actual television transmissions! James Baird showed the first out-Jenkins showed silhouettes in this country. These were called "shadowgraphs." Then in the fall of that momentous year an office boy's picture was shown in a London studio.

The next year television gained height, when infra-red rays were used. For now a person could be televised in the dark. In 1927 the American Telephone and Telegraph gave impetus to its development by actually sending pictures from Washington to New York and back again. The following year television spanned the Atlantic. The tremendous "shooting up" was followed shortly by a ship, the *Beren-garia*, being wired for television. The wireless operator had the thrill in mid-ocean of seeing a picture of the girl he was planning to marry flashed to him from a London studio. Then color and "three-dimensional relief" began to become important.

But it was in 1930 that television became of age. For that year saw many exciting changes take place. Speech and images were synchronized, the first play was televised, television was shown in a theater. Close on these, the first outdoor

scenes were picked up and the famous English Derby was successfully received via television.

England, France, Holland, Germany and America all fed and nourished the video child. In England television was stimulated to faster maturity than here for one station had a monopoly. This country, held by fierce competition, took much longer in setting up standards.

Television made its formal debut in

1939 at the World's Fair. Then, the war stopped nearly all work on it abroad and greatly subdued its activities in this country.

Now there are nine active stations sending out programs at specified times each week. Television, fully developed, is restrained only by the war in carrying out its work. Its personality may change through these next coming years, but it is, at last, sound and ready.

First Traveling Stock Company

ON Friday, August 11th, the first traveling video stock company, consisting of members of the Television Workshop Players Group, gave its first experimental road-tour performance at the General Electric Station, WRGB, at Schenectady, N. Y.

The purpose of the experiment was primarily to determine how economically a full dramatic production, utilizing two sets, costumes and Broadway actors, could be mounted at a station remote from New York.

It was decided to send principal players only, arrangements having been made for the station to obtain local players for bit parts, thus keeping railway and hotel expenses to a minimum.

The second point in the experiment was to determine whether the station could supply the required sets from the sketches furnished in advance.

Thirdly, the experiment was to determine the rehearsal time a traveling company would need once it reached the studio, since it is important—from the standpoint of expense—that the company perform on the day of its arrival.

The play elected was "The Woman Who Was Acquitted." The play was cast on Tuesday, August 8th, using players who were entirely unfamiliar with the play. The first rehearsals took place the next day, August 9th, for two hours at the Television Workshop and again the following day.

Two special mock-up cameras were used to figure out the camera shots in advance and to familiarize the players with the camera movements.

A shooting script and floor plan was sent to Bob Stone, WRGB studio director, two days in advance of the scheduled telecast.

On Friday morning, August 11, the players entrained for Station WRGB. During the four-hour train trip, they went through line rehearsals, which continued until all were letter-perfect.

When the group arrived at Station WRGB, everything was in readiness. The sets were in position; the bit players, supplied by the station, knew their lines, and were ready to perform. Title cards, music and sound effects recordings were already marked and ready.

At three o'clock Director Bob Stone put the players through a "dry" rehearsal to become familiar with the stage "business" and to cue his shooting script which had been sent to him in advance.

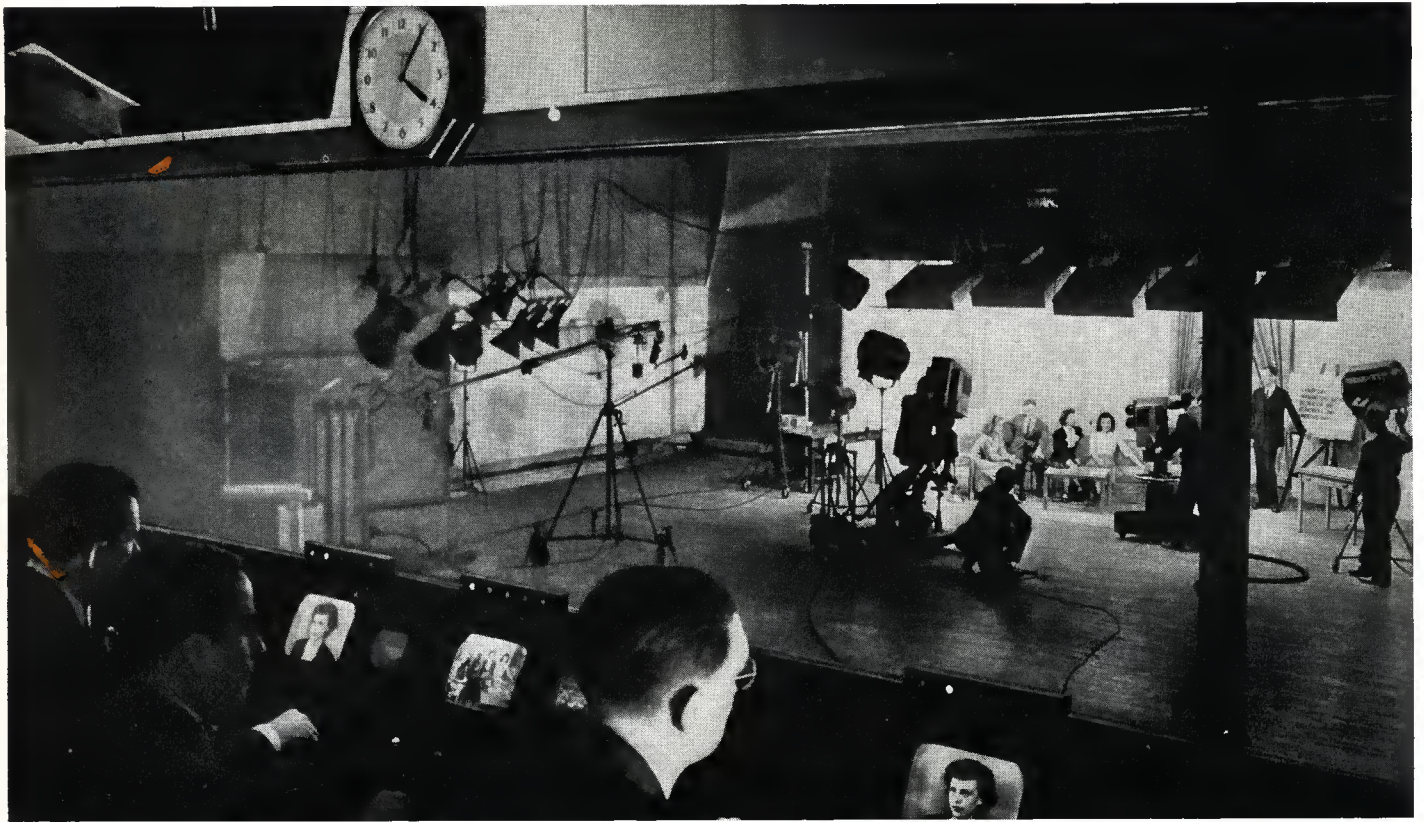
By four o'clock everything was in complete readiness. Everyone in the studio—camera men, light and sound technicians, other studio personnel—were now fairly well familiar with the play. For the next hour and a half, the players rehearsed before the cameras to the satisfaction of the station director.

At nine o'clock "The Woman Who Was Acquitted" was finally presented to the WRGB audience—just three days after the play had gone into production, with only 1½ hours of camera rehearsals. The performance came off with motion picture smoothness.

By ten o'clock the players were completely packed, ready to entrain on the night Pullman for the next destination.

Thus, the first experiment in television touring companies came to a successful conclusion. Was it successful? The answer is: more shows were immediately scheduled for September 7th, 15th and throughout the Fall and Winter seasons.

The success of the Television Workshop experiment will, no doubt, set the pattern for postwar touring companies.



View of the Director's Control Room of CBS' WCBW in the Grand Central Building. Next to the Director Sit the Video Engineers.

THE TELEVISION DIRECTOR

By THOMAS LYNE RILEY

THE television director is the person directly responsible for preparing, producing, often selecting television shows; and it is his task to mold every facility of the medium to accomplish the most effective presentation. To work with, he has a large array of physical properties including cameras, lights, scenery, effects; a staff of engineers responsible for getting pictures and sound on the air; set designers, property men, stage managers, musicians, actors, entertainers, speakers and others concerned with the actual program content of his show. He is the connecting link between the world of make-believe, which is show business, and the world of reality, which is engineering. Seated in a control room where he may view the output of any of the three cameras at any time, he composes each picture before it goes on the air by relaying his instructions to the cameramen in the studio, then selecting which picture will be actually broadcast.

Although directing television is similar

(Television director at NBC for three years, and later radio and television director of William Esty Agency, Tom Riley is now radio director for the Co-Ordinator of Inter-American Affairs, stationed in Chile. The article is from "We Present Television," by Porterfield, published by the W. W. Norton Co., New York City.)

in many respects to directing in the theatre, limitations of camera and studio make concentrated action a keynote of the former as opposed to the effect of space achieved on the stage. On the other hand, television, like motion pictures, can shift from set to set during the action, and, through such screen devices as trick-angle shots, close-ups, etc., it may concentrate on dramatic effects which may be obscure at a distance. Both television and the stage have one great advantage over the movies in that both convey action happening at the moment; and in both cases the action is continuous with none of the retakes and editing used in making motion pictures. This is always impressive to audiences, although it is the difficult responsibility of the director to see that no mistakes are made.

In choosing material for telecasting, the

director has to remember that the final product must be fit for home consumption. Although almost every conceivable form of entertainment, instruction, and exposition has been produced by the New York NBC studios, there are three general types of shows which have been found most satisfactory: the variety show, the comic opera, and the drama.

In producing a variety show it is the director's job to engage separate units with wide appeal which when presented in combination will make for the most diverting production. Many successful shows have been tried at NBC ranging from quizzes and dancing lessons taught by professionals to lantern-slide lectures on art, science or needle work and cooking instructions involving actual preparation of foods.

Let us take a typical variety hour, opening with a dance team. In the main, long over-all camera shots are required to show the co-ordination of the dancers, and this is varied with close-ups showing intricate

bits of footwork or facial expression, a medium shot for the bows at the end of the act, and such tricks as elevating the long-shot camera and shooting the dancers from just above eye level thereby increasing the illusion of perspective.

The director then orders a fade-out or a direct cut to the master of ceremonies who introduces the comedian whose act is heightened by use of amusing close-ups focussed on the facial pantomime and the comic accessories. Following a performance by an instrumental trio we come to the last half-hour of our variety show: the spelling bee. Here the director must follow the progress of the bee, get close-ups, pick out dramatic details and in general hold the show together just as if it had been carefully rehearsed—a task requiring considerable quick thinking on his part in order to give a coherent sound-and-sight account. Shows of this type can easily run for thirty minutes without becoming tiresome, and spelling bees, in particular, have proved to be excellent television material.

THE COMIC OPERA

In presenting comic opera, NBC has had particular success with shows of Gilbert and Sullivan. In our first undertaking, "The Pirates of Penzance," the director worked with Harold Sanford, well-known musical director of light operas, and with Miss Ivy Scott, authority on the traditional stage business of Gilbert and Sullivan. Among the techniques learned were the fact that in television a much smaller cast and orchestra could be used than is required on the stage. The script and score were cut closely making the plot completely coherent but with very little repetition thereby maintaining the rapid pace essential to good television. After a few days of rehearsing the singing of the show, Miss Scott and the director started with the dialogue, movements, and business of the opera with Mr. Sanford continuing his supervision of the music. Changes in staging and continuity were often required to suit the new medium. As the rehearsal progressed, possible camera shots were noted and set with the players. In the meantime the director, the scenic designer and Miss Scott collaborated in sketching the two sets required, and the special effects department was given the task of building a miniature castle for the purpose of showing an exterior view of one of the sets. In two camera rehearsal days we worked out all camera positions

and shots, using close-ups on solo, medium shots on duets, and cutting in for close-ups on individual parts, three-quarter shots on larger groups, and long shots for mass action or ensemble singing. We placed the orchestra to one side of the studio, with one set at either end, making it simply a matter of reversing camera positions during the intermission. A commentator was used for setting the scene, telling about the cast, opera, author and composer, for a three-minute commentary during intermission, and again at the close of the show. And so "The Pirates of Penzance" went on the air for the first time with sight and sound, proving that good comic opera is definitely television material.

THE DRAMA

The field of television enterprise which demands most of the director is that of the drama, for in no other form is so much versatility, originality, and imagination required. Here we find the director in the truest sense: one who interprets a story for the audience. Television, owing to its extreme power of selection and isolation of certain points by means of close-ups and other visual devices, calls for exceedingly precise direction. Everything should be rehearsed carefully and then played exactly as it was rehearsed. Let us choose a typical production—"The Farmer Takes a Wife"—and describe what the director had to do with it:

The book, originally the novel "Rome



Haul" by Walter D. Edmonds, told of the people who lived along the Erie Canal in upper New York State in the eighteen fifties. It was later dramatized for the stage and produced as a motion picture. After purchasing the play for television, in 1939, the first thing done was almost a redramatization of the book. The mob scenes had to be cut, which left little except the basic love story. So we decided to divide the emphasis between the plot and a semidocumentary treatment of the Erie Canal itself. To do this considerable use was made of film. Shots were taken of a Pennsylvania canal which today looks like the Erie did in 1850, and a film montage of old locomotives and trains was made for use in illustrating the railroads' invasion of the transportation scene. A narrator was used to tell parts of the legend while the audience looked at the film portions. The special effects department built in miniature a section of the canal complete with locks and typical hotel of the period; the scenic designer did the interior of the hotel and two other sets; the costume house and our property men were set about their tasks.

Meanwhile, after casting the play, rehearsals had started and the entire play was given pace just as would be done in the theater. In rehearsing for television, the director has to keep thinking in terms of possible camera shots in addition to adhering to many of the tenets of theatrical craftsmanship. Printed titles using a map of the Erie Canal as background were drawn up for introducing regulation credits at the show's opening, and the map was changed to motion pictures of an actual canal as the narrator took up. We went from map, to film, to miniature, to studio set and the play. Background music from phonograph records was used to heighten the dramatic, scenic and historic parts of the play, and NBC's sound effects department provided boat horns, insect noises, train whistles and other sounds.

The director always prepares a shooting script of his entire play before it goes into actual camera rehearsals. The right hand margin of each page is used for penciled directions, camera shots, orders to cameramen, sound effects, film studio warning and starting cues, music cues, and orders to the stage manager who works in the studio in direct contact with the cast.

A final checkup the day before "The Farmer Takes a Wife" went before the

cameras revealed the following: a shooting script, a cast which had been rehearsing for almost two weeks, a set of titles, a narrator, four special film sequences, a miniature, sound effects, marked and timed phonograph records, costumes, properties, and three sets which almost overflowed our floor space, in addition to all basic studio equipment. It was now up to the director to blend all those factors into a television production.

We devote two days to camera rehearsals on plays at NBC. There are always changes made necessary by lack of space or physical inability to produce a shot which seemed right in theory, and more effective ways of establishing some dramatic value frequently must be found at the last minute.

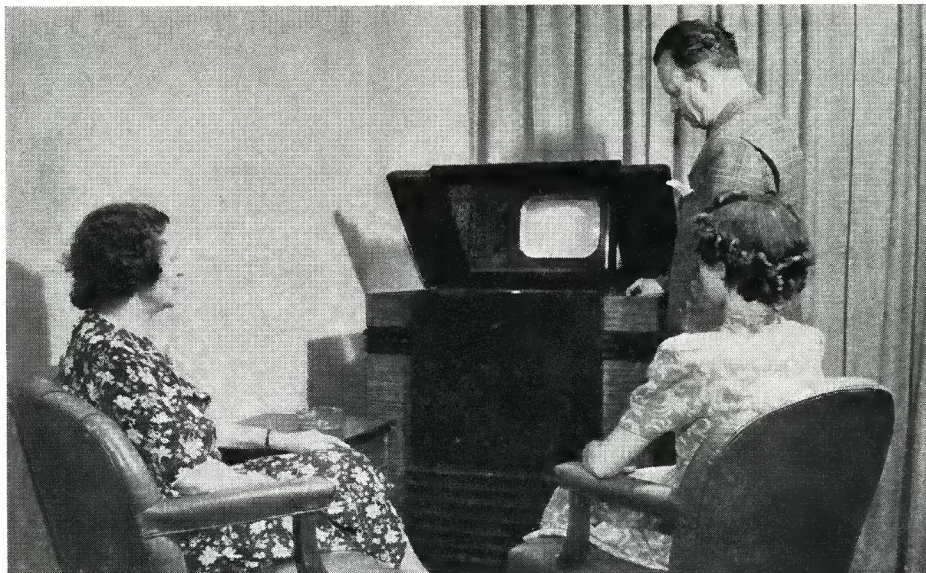
The director works with two screens before him. Directly facing him is the picture which is going on the air. Slightly to his right is the preview screen, on which he may at all times see what any one camera is taking. All shots are first composed on the preview screen, and then, on cue, the picture is snapped to the "on the air" position. Thus, the television director is—or should be—ahead of the actual performance by at least one camera shot. During all this, the director is trying his best to hold all the other parts of the show together by giving orders to his stage manager through a headphone set, as well as cuing music or film to the engineers in the control room with him.

"Take two. One, get on the three men by the door." "Three on the girl." Repeated. "Two minutes, 5-A." Repeated by a different voice.

"Noel, sneak in when we're off that side of the set and get that lamp chimney. It's making a bloom. . . . Take three . . . One, stay there Take one. . . . Three, get on the miniature." Repeated. "One, dolly in." Repeated. "One minute, 5-A."

"Oh, no, two, no, on the title!" Repeated but without so much intensity. "Boat horn. . . . Sneak in your music. . . . Thirty seconds, 5-A." Last part repeated. "Preview three. O.K. Roll the film, 5-A." Repeated. "Stand by, narrator. . . . Fade out one, fade in five. . . . Music up. . . . Preview three. . . . Music down. . . . Start your narrator. . . . Quiet in the studio! Take three preview two. . . . Music up. . . . Take two. . . . Kill the studio sound. . . . O.K., intermission, three minutes."

That was a television director speaking.



Your Video Audience

DR. ALFRED N. GOLDSMITH, in a recent talk before the Television Producers Association, told the program-producers present that the home television audience differs widely from the movie audience or the crowd that attends a Broadway show.

When you go to a movie, you have done so because you want to see a certain movie, or because you had nothing else to do. In either case, you paid an admission price, and come hell or high water, you'll sit through it—feature, coming attractions, bingo announcement, newsreel, Mickey Mouse, and second feature. If you don't like the movie, you're usually too polite to say anything about it. Besides there are ushers around.

With a play, you've planned weeks in advance to attend "Life With Uncle Harry" and paid \$3.30 for the seat. If you get bored with the play, you look around the theatre until some line or action in the play gets and holds your attention.

Not so with the television audience. If it doesn't like your offering, a turn of the dial and you're electronically dead—at least so far as that listener is concerned.

What is the typical videoist like? He's grouped with his family around the television set. He tunes the set carefully, takes out his pipe, lights it, and sits back in his chair, waiting to be entertained.

Suddenly, the telephone rings, the doorbell buzzes, the baby cries; the door opens and shuts, visitors come into the living room; his pipe goes out; he stops to light

it. Mother suddenly remembers she has knitting to finish and turns on the bridge lamp, which interferes with the picture on the screen.

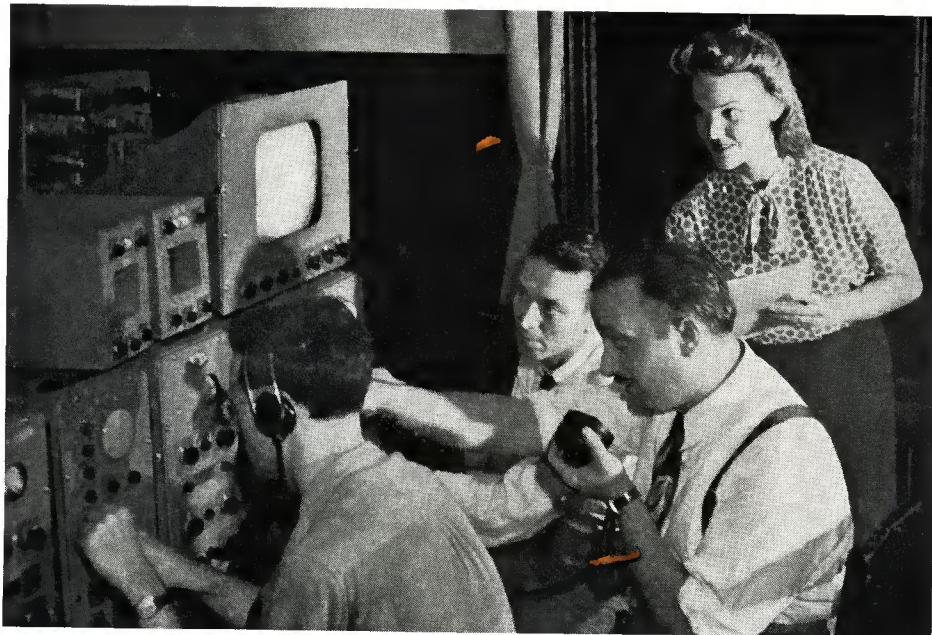
Thus, the producer of television programs faces severe competition for attention in the home, and unless he produces a program which immediately arrests and holds the attention of a majority of the household members, he's apt to be tuned off, with his program left to haunt the precincts of the higher frequencies in search of customers.

Once your program makes contact with your intended audience—and it likes the offering—the response will be very vocal. Ten times as much listener mail can be expected to pour in than from a similar radio program.

Because the television screen is small, it is, therefore, wise to use many more close-ups than long shots. Your television audience will become very fidgety and will quickly lose interest if plagued with long shots.

If your program is bad, you may expect much criticism. Whatever is bad is magnified ten times on a television screen. Poor actors, inadequate script, inexpert direction, too-much-talk-and-not-enough-action, windy commercials and other annoyances will bring forth the wrath of videoists upon your head.

So, it is well to remember your television audience at all times—loving and gracious though they be—they are desirous of being entertained, not bored to death.



Raymond E. Nelson, Vice-President and Television Director of the Charles M. Storm Agency, is Here Directing One of His Many Shows at WABD-DuMont.

Setting Up A Television Department

By RAYMOND E. NELSON

WHEN we started our television activities here at the Charles M. Storm Co.—some fifty shows ago—we did so as a matter of basic agency policy. We've been in business some fifty-six years and we've always felt that a constant, and immediate, interest in new media was a duty we owed our clients. In any event, there was the organizational problem of "Just where does Television fit into the agency pattern—and how?"

Television usually winds up as a function of the Radio Department in the average advertising agency, which I don't concede to be especially good thinking. Television, aside from its electronic and mass communications aspect, isn't even vaguely akin to radio. You can't entrust its destiny to men whose work has been confined to the narrow medium that is radio—where it's a matter of reading from a piece of paper, and where direction is primarily a matter of modulating the inflection of the speaking voice, and holding a stop-watch on it. Very few agencies have separate motion picture departments; many of the ones that do assign the television duties to that division instead.

Well, that's closer—but not close enough. Television's an art that demands, first and foremost, well-directed INSTANTANEOUS performance, and the skill ac-

(From director of daytime programs for WOR to television director and vice-president of the Charles M. Storm Agency is the recent history of one of television's prolific producers, Raymond E. Nelson.)

quired in a motion picture studio, where time is fairly abundant and retakes available, pales before the perpetual rush job that is today's television. Does your motion picture director require techniques adaptable for television? He certainly does—but they're insignificant alongside the special aptitudes he'll have to develop to hold his own in television.

The point is, you don't set up a television department—you train one.

The grocery man hires a clerk with grocery experience. You can't do that in television, for two reasons: first of all, there aren't enough people with television experience to talk about. And, secondly, if there *were* they'd be wise not to talk about it, because ninety percent of the television programming to date has been so unspeakably bad that any connection with it constitutes a black mark against the applicant.

I had the advantage of having some forty or fifty television shows under my belt when I joined the Charles M. Storm Company, and I had a pretty good idea of the basics involved.

In addition, luckily enough, I had long years of theatrical background, which included everything from directing dramatic

stock to producing light opera. And so it was possible for me, although titularly head of the radio department, to add to that operation the combination of experience necessary to television production.

The television department expanded according to need, and its personnel was added in terms of training for that need. Edwina Sprague, for example, came to us with a rich backlog of experience in both radio and stage production, and, as a former agency executive, with a good concept of the client's problems, too. George Foster, another member of the department, had been a star student in journalism, and a radio writer of proven ability; he's adapted himself beautifully to the television medium. One of our newest additions, Peggy Whedon, had played Broadway leads, and had, fortunately, an excellent flare for dress designing. She supervises all of our costuming now, and the wardrobe side of our programming has gotten a much needed lift. Our musical director, Sam Medoff, has been working with me since I took my first timorous television step; our dance director, Bobbie Jean Bernhardt, has now done her terpsichorean stuff on some fifteen or twenty shows.

None of these classifications, it should be mentioned, is hide bound in its opera-

tion. We keep a constant rotation of ideas and duties; the scripter of this week's television show may be the stage manager of next week's. The wardrobe mistress may be the leading lady week after that. All of which isn't nearly so confounding as it sounds; it's all part of a sincere effort to acquaint every staff member with every phase of the television operation. And enables everyone concerned to double and triple in assorted television brass whenever the occasion demands.

"The Boys from Boise," a grandiose television effort, is a good case in point. It went on the air September 28th over WABD, sponsored by Esquire Magazine. To give you an idea of the magnitude of the enterprise—and, all press agency aside, it was a B-I-G project—a two-and-a-half-hour original musical comedy, with a cast of 75, an orchestra of 13, and three elaborate settings. We did, to all intents and purposes, stage a production as difficult as the average Broadway stage show, with the added problems attendant in a presentation minus a dimension or two.

Never before in the history of the advertising business—and it's an industry with plenty of hectic traditions—has an agency been called upon to add to its activities the bee-hive aspect of the Shubert office at its busiest. That's why a television show like "The Boys from Boise" requires a competent, resourceful staff of hard-working people who can do almost anything and do it superlatively well. And that's why, for example, no one was at all surprised at the fact that, at one rehearsal, Sam Medoff, whose primary jobs are those of composer and musical director, was busy at work teaching dance steps to the Conover models. And this, because Bobbie Jean Bernhardt, whose job *is* dance instruction, was hard at work designing a costume; replacing, this time, Peggy Whedon, who happened to be tied up writing additional scenes for the show. George Foster would have been doing this in the ordinary course of things, but *he*, it happened, was sharing a paintbrush with Edwina Sprague, under the watchful eye of Frederick Widlicka, the agency's art director, who designed "The Boys from Boise" settings. The point is that, even as at the Mad Hatter's tea party, everyone concerned could have moved one place to the right—and known how to handle the setting *there*, too!

Well, that's the way you—er—acquire a television department!

ADVICE TO THE TALENTED

By SELMA LEE

(Selma Lee is director of the television talent department of the William Morris Agency, where prior to the advent of television she was in charge of "legitimate" talent.)

NOW is the time for all who are interested in television to get into this new field while plenty of opportunities to experiment and audition still exist.

At this point the field is wide open for ideas. With adjustments to the requirements of television, your ideas may prove of value.

Know the limitations as well as the advantages of the medium. Television is aimed at the family. Obviously then, this is a very personal medium. Yet, if father should guffaw at something slightly off-color, or brother smirk at a double entendre, beware of mother and her concern for baby sister. Television is not out to precipitate a family argument! Questionable material is definitely out.

Realize the space and time limitations and adjust yourselves to them. Until recently performers, cameras, technicians, mike booms, light banks and spots, operated in one small room. Moving from Stage 1 to Stage 2 involved two steps to your right or left, as the case might be. Therefore, if possible, see your studio before planning your performance. Post-war plans for television studios will undoubtedly facilitate production: mercury-cooled lights, better cameras, etc. But if one gains experience working under present limitations, and can produce the goods, post-war production should be a snap.

It is well to remember that Television technique bears similarities to motion picture the eater and radio. But it has qualities beyond any of these and only direct

experience in the field will reveal these differences.

Study and learn as much about the general field as possible in your spare time. Courses have been offered by various colleges in the city and will again be scheduled this Fall. Recently a Television Seminar Series was offered by the Radio Executives Club for a period of 16 weeks. At each ninety-minute session, recognized authorities in the various fields relating to television presented their views.

Television societies are sprouting mushroomlike, all dedicated to gathering together those interested in the field, and presenting to them latest developments in form of discussions, panel sessions, guest speakers. More and more trade papers carry views and developments—watch for these. Try to meet people who know something about the field, discuss it with a view to where you can fit in, and above all, get into Television quickly.

It cannot be too greatly stressed that with the happy turn in the war, activity in this field will be stepped-up. Now is the time to get started. Once Television starts rolling it is generally felt that progress will develop more quickly than that made in radio at its start. Technical developments have been speeding ahead throughout the war period and manufacturers are all ready to offer a moderately priced set to the public as soon as the WPB gives the green light. So we, who are interested in Television from the programming end, must lose no time—we cannot afford to lag behind the technical advances. In the final analysis, it will be good programming that will sell television to the public.

So, if you're anxious for a place in television, now's the time to make it. Go to it!



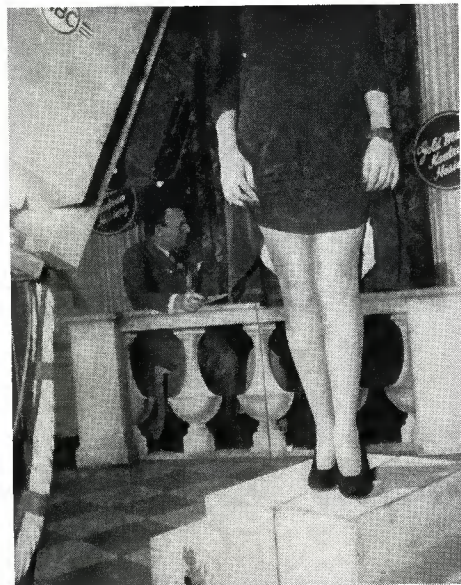
ACTORS



MODEL BUILDERS



NEWSCASTERS



MODELS

NEW CAREERS IN TELEVISION

WITH each new invention come new jobs. Little did Gutenberg, in 1456, realize that with his invention of movable type, millions of persons would subsequently be employed directly and indirectly in the printing and allied industries. Or little did the Wright Brothers realize that their successful flight at Kitty Hawk would result in millions of persons being employed by aircraft factories in the United States and throughout the world.

With the advent of commercial television after the war, it is estimated several million persons will find employment—directly or indirectly—in this new field.

Then, too, as with the motor car and the airplane, the impact of television will be felt horizontally in scores of industries, such as plastics, lumber, copper, paint, building construction, motion pictures, costume, scenery design and dozens more.

The job of producing 25,000,000 sets, the industry's goal for the first ten years, will absorb a huge army of homecoming veterans. Another will be required to sell, install and service those sets. While still another will be needed to sell station time, produce scenery, prepare scripts, act, direct, write music and in general, produce the hundreds of programs that will eventually emanate from an estimated thousand television stations spotted throughout the country.

With television will come many new job opportunities—jobs in management, production and engineering. Some are listed here:

ARTISTS—To design scenery, title cards, costumes.

ACTORS—In numbers undreamed of in motion pictures, the stage or radio—for "live talent" studio shows, for television films and for television stock companies. Stage training best for television.

ANNOUNCERS—To announce programs and commercials. Suitable appearance and personality required, as well as proper voice.

ACCOUNTANTS—To keep tab on the scores of cost items that go into a full scale television production: rehearsal and performance time for actors and musicians; props; costumes; sets; technicians; royalties; air time; studio charges, etc.

CAMERAMEN—To operate television cameras. Motion picture experience desirable, but not essential.

CARPENTERS—For building studio sets and models.

COPYWRITERS—To write program commercials. Advertising copywriters will need training for television writing.

COSTUMERS—To outfit shows with costumes in quantities far greater than those needed for stage or screen.

DIRECTORS—Scores of directors and assistant directors will be needed for rehearsals and in the studios. Others will be required for television films.

ELECTRICIANS—To handle all electrical work and maintenance around the studio.

ENGINEERS—Chief engineer heads engineering staff and is responsible for smooth studio operation. Under him are: (1) the *video engineer* who controls the quality of the pictures emanating from each camera and switches them on to the main channel, at the director's cue; (2) the *sound engineer* who controls the sound as it comes directly from the studio.

FASHIONIST — To select costumes and direct women's fashion shows.

FILM MEN—To film outside "location" shots for use in programs, to shoot newsreels for use on newscasts, television "shorts," commercials, etc.

LAWYERS — To clear all copyrighted scripts and music; make contracts with actors, sponsors, networks, agencies; defend clients against the scores of lawsuits involving infringement of copyrights, breaking of contracts, real and imaginary grievances.

LIBRARIANS — For filing all scripts, keeping up-to-date library of books and publications.

MAKE-UP ARTISTS — To see that performers are properly made-up

MUSICIANS — As in radio, needed in live-talent shows and film transcriptions.

MASTER OF CEREMONIES — To emcee variety shows, fashion shows, etc.

PERFORMERS — All types, including: dancers, puppeteers, magicians, acrobats, singers, etc.

PHOTOGRAPHERS—To prepare suitable pictures for use on programs; also to make still pictures of studio shows for publicity, advertising and record purposes.

PRODUCERS — To produce the programs: select the script, choose the director, pick the cast, plan the scenery and costumes, choose the music, etc.

PROGRAM DIRECTORS — Hired by the studio and ad agencies to coordinate plan programming.

PROJECTIONIST—To handle telecasting of both films and slides.

PROP MEN—To build the props and miniatures needed for each live production.

PRESS AGENTS — Many will be kept busy by studios and agencies in getting publicity for the highly-paid stars and costly shows.

RESEARCHERS — Program research; study audience fan mail; audience surveys.

SALESMEN—Sell receivers, transmitters and air time.

SECRETARIES — Perform their usual functions in all departments of the studio.

SOUND TECHNICIANS—To operate the studio sound system, monitor it for the proper qualities.

TALENT MANAGERS — To secure and allocate the tremendous amounts of talent need for television productions.

TEACHERS—To teach television courses and allied subjects.

WRITERS—To prepare scripts—by the hundreds!

THE VIDEO ANNOUNCER

By DICK BRADLEY

(Dick Bradley is staff announcer of the Television Workshop. He has participated in scores of telecasts as announcer and emcee. He is also an announcer for Station WNEW.)

It has already been discovered that performers, guests, and announcers are shown to best advantage if each memorizes his part of the show, not necessarily to the point of absolute perfection every time, but certainly well enough so as to make it easier for his fellow actors and studio technicians. Never should an announcer depend totally on his memory and the picture of the script in his mind's eye. Rather he should have developed, through study, a thorough knowledge of the "commercial"—a definite idea of what his sponsor has engaged him to *sell*. If he does this, and, through his confidence in the product, and his own pleasant personality, conveys to the television audience the desirability of the product, what matter if he follows the script word for word?

Let us suppose, therefore, that the announcer has "learned" what he is to say to his video audience. He perhaps would like to read his script at the first rehearsal, in order to familiarize himself with his own camera positions, coordinating these with each speech. It is well at this first rehearsal to make slight notations in the script's margin, regarding directions given him, exact camera position, etc. This is good to know in his study of the show, preceding its dress rehearsal and actual performance.

So we assume that it is "air time." The announcer applies a minimum of a special television make-up, gets last-minute notes from the producer, the director, the artists, the cameramen, the sound technician, etc. He takes his definite stance before the lens; assumes a "relaxed" posture, forgetting for a moment that his hands seem to

be "in the way." Perhaps he finds it beneficial to grin broadly, the better to relax his facial muscles. Above all he must remember to remain in one position, to allow the camera to focus properly, and when he does move, do so slowly and deliberately. Most important, the video announcer must *never* appear "stiff."

One of the primary thoughts well for the announcer to keep in mind is that he has a *seeing*, as well as a *listening*, audience. Therefore, when he has received a cue from the studio director that he is "on the air," he should immediately visualize himself as addressing someone in person . . . regard the camera lens as a friendly, human face . . . greet that face with a bright smile. This is the fellow who is going to buy that product, but he is there to be convinced. That is the job of the video announcer. It shouldn't be difficult, since the announcer knows what he is selling, he has confidence in the points he's bringing out, and he is presenting them in a serious vein, albeit pleasantly personal—actually as if the potential is being let in on a wonderful secret.

Quite often in television an announcer appears frequently throughout the program. Perhaps he is presented as the moderator of a quiz show; perhaps as the master of ceremonies in a night club scene, or as a "roving reporter." In such instances he changes his personality directly following his presentation of the commercial. Up to this point he has directed his attention solely to the video audience. Now he becomes more informal, amusing, without overdoing it, but above all, *relaxed*. The video announcer now begins to sell the talents of his artists. His audience is anxious to relax, remember, and to be entertained. It's largely up to the announcer to make this possible.

PROGRAMMING

By THOMAS H. HUTCHINSON

Production Director, RKO-Television Corporation

TELEVISION programming offers a definite challenge to the program builder. The cost will be far greater than radio; and many basic radio ideas will be unsuited for the new medium. We must learn through experience right now just what is good and bad television program material.

Before the war almost 60% of the radio programs in this country were musical. Orchestras and vocalists of one kind or another provided the backbone of the radio programs heard throughout the country. I do not believe, however, that musical programs will fill the percentage of time on the air in television that they have filled in radio. This means that we must devise some new type of entertainment if we are to maintain the television schedule that the American public will demand.

THE SIX BASIC IDEAS

No matter what some people may say to the contrary, the similarity in audience reactions between motion pictures and television will be very close for, after all, television *is* a motion picture. The basic subject matter used in motion pictures is: drama, musical comedy, animated cartoons, news, commercial shorts, and educational features. These six basic ideas are proven visual material, and in general, television is going to have to program its stations with these types of programs, using to the fullest extent every possible approach in presenting them. The important thing in television is not going to be what to do, but how we do it; and this becomes doubly important in view of the fact that for a long time to come the economic factor in television will force us to produce our television programs just as cheaply as possible.

NEW PROGRAM IDEAS

The visual aspect of television is going to open up some new program fields. It is obvious that art, dancing, fashion and other subjects which have to be seen to be appreciated and which were unsuited to radio, are going to find their place in television. But there is no cut and dried formula for presenting such features; the same idea can be good or bad

in television depending entirely on how it is presented.

In spite of the television program experiments that have been conducted so far, very little has been learned that will be of lasting value as television material in the days to come. For programs that seem satisfactory today may or may not be in the running after the war. All of us who are interested in television are quite justifiably thrilled over the fact that in spite of the war there are television programs on the air in the New York area every night in the week. But so far there are no competitive program services. Think of the spot program builders are going to be in when the television audience has the choice of several television shows to pick from.

THE TELEVISED DRAMA

Let us examine some of the facts that have already been learned about television programs. Before the war we had a television schedule of fifteen hours a week for over a year, and we had the same basic television audience then that we have now. Various surveys of this audience made from October 1939 to the present have given us clues as to its likes and dislikes.

We might begin with drama, which

was the audience's first choice. Good solid, rehearsed entertainment is going to be the backbone of television programming, in my opinion. For almost a year and a half before the war began we presented, at NBC Television, adaptations of successful Broadway plays. Running from an hour to an hour and a half, they included such plays as "The Missouri Legend," "Brother Rat," "Jane Eyre," "Three Men on a Horse," "Stage Door," and "When We Are Married." The last mentioned play was particularly successful, and represented an interesting experiment for we brought the entire cast of the Broadway play into the studio and telecast it just as it was done on the stage. Audience reports favored such dramatic programs right from the start. "Jane Eyre," for instance, out of a 3 for excellent, received an audience rating of 2.76, or figuring it in round numbers, 91%. Every dramatic presentation we gave polled a rating above 2.5 or 86%, which is a rating that a lot of radio programs would like to have today.

SPORTS PICK-UPS SECOND

Outside sports pick-ups were the second choice of the audience. A high ranking favorite that surprised all of us was wrestling. It averaged higher in audience reactions than boxing, probably due to two factors: first of all, wrestling was

Singers of Popular and Classical Music Are Much in Demand in Television. Shown Here Is a Vocalist Before the Cameras at WRGB, Schenectady.



TELEVISER



Hot Swing in Television! Performers Shown Here at the General Electric Station Do Their Stuff in a Televised Variety Program.

scheduled regularly in the evening once a week, and, secondly, we were able to do a good pictorial job, since the arenas were smaller than Madison Square Garden and we were able to get closer to the ring. The action, for the most part, was confined to a relatively small space, and the audience liked it.

There is no question that boxing is good television material, but there are still a lot of things to be done in the way of pick-up arrangements. Every boxing match that has been televised so far from a public arena has picked up the fight in a brightly lighted ring against a background of blackness. This obviously does not tend to make a good television picture. At the present, I know of no way to overcome this obstacle, but the problem must be solved if we are going to have good pictures from public arenas. The best result at the present time would be to put on boxing contests in properly lighted studios, staged especially for the television audience.

Other sports particularly suited to television are football, hockey and basketball, because the players in these games operate within a fairly confined space. Baseball and horse-racing require several cameras to present a good telecast, but multiple camera techniques for televising these sports will be developed in the future. By switching from camera to camera as the race progresses, we will be able to view the horses all the way around

the track, in the horse-race telecast of tomorrow.

Feature films were always a favorite high rating program principally because they presented a well constructed story. But when we consider that all the feature films that have been televised have all been from three to four years old, in some cases ten and twelve, I do not feel that we have had a fair test of film features of this kind for television. The value of all the night shots was lost because of the limitations of the television system, and the long shots were of no value because of the size of the screen. After the war, when the television receiver manufacturers put out flat faced tubes and projection receivers, we will be able to use long shots much more effectively than we have in the past.

Travel pictures with the explorer in the studio giving a personal first-hand account of his travels as depicted in silent motion pictures, met with definite approval on the part of our audience. When we begin to make motion pictures for television and can bring the world into every home, this type of program is going to be very important.

VARIETY PROGRAMS

In variety programs we tried almost everything we could think of. If anyone came along with a new idea, we tried it. Almost every type of vaudeville act

has already had its television premiere. We found that certain variety acts were much better than others by the very nature of the act, but I will not discuss this type of show in detail, because obviously personal opinions influence audience reactions to these programs. If you like jugglers better than magicians or skaters better than fan dancers, you can pick the ones you prefer. They can all be picked up on television.

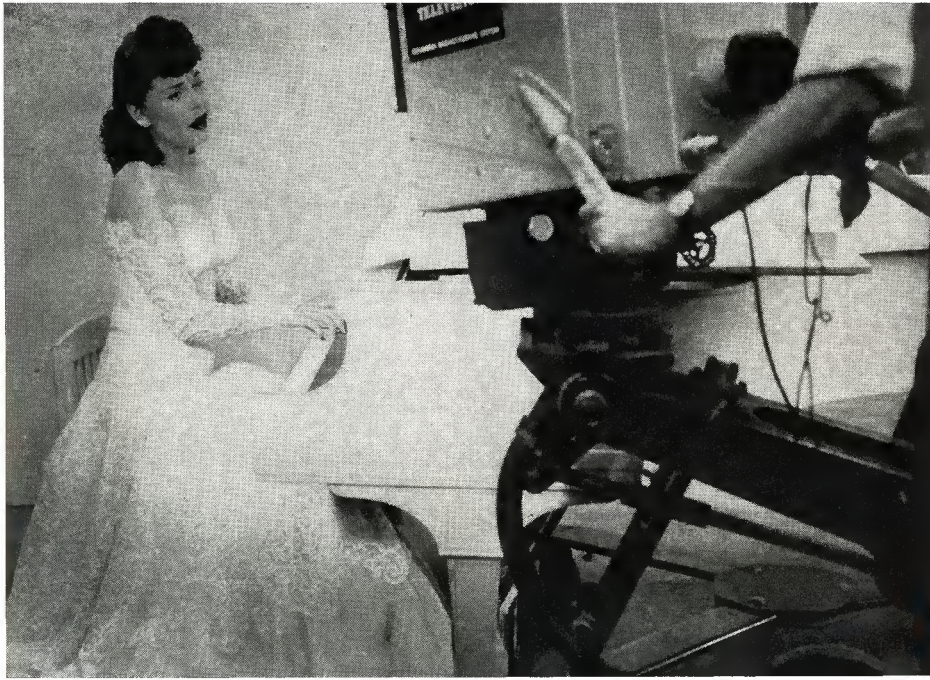
TEACHING VIA VIDEO

If it is done properly, there is nothing that you cannot *teach* by means of television, for with sight plus sound you can explain anything. We have experimented with the teaching of music, dancing, golf, fencing, bridge, cooking, gardening, makeup, hair dressing, painting, photography and a host of other arts. They can all be done well if they are presented properly.

One of the most interesting programs that we ever did of this kind was a program showing how to make a dry point etching. Its success was due mainly to the fact that the man who gave the lecture knew his subject and was willing to rehearse sufficiently to enable us to pick up in closeup every point he made.

BRIGHT FUTURE AHEAD

In the years ahead of us I believe that the program builders of America are going to find Television an insatiable monster that will devour in its stride the work and brains of thousands of men and women. Just imagine eight hours of programs a day on four competing networks. That's 11,680 hours of visual programs a year. In 1943 the entire motion picture industry put out less than 600 hours of visual entertainment. This means that television is going to absorb the equivalent of twenty times the output of the present motion picture industry. And it's going to take the combined efforts of networks, the motion picture industry, advertising agencies and individual producers to begin to meet the future demands for television programs. It's a bright future and one we ought to get started on.



A CBS Pianist Being Televised During a Musical Program.

Music for Television

By MIDGE KLINE

(Midge Kline has been studio pianist for Station WABD-DuMont since its opening. She is a graduate of Hunter College, having majored in Music.)

TELEVISION has focused the camera on the musician. Formerly, he was concerned with the problem of aural reproduction of sound. Now the problem resolves itself into a visual presentation, with the listener looking in.

The music director knows that an audience "dreams up" a vision of the performers when listening to the radio. His choice of a soloist must portray this imaginary heroine on the television screen. Not only must the performer be physically attractive, but she should have a friendly, warm personality. She comes into the home of the listener for a short time, yet she must make herself a welcome guest.

We have found that good singers make very popular performers. The whispering crooner, however, is not a success. Since the stationary floor microphone does not make an interesting television picture, we use a microphone placed out of range of the camera. It is attached to a long, movable boom and suspended over the head of the performer. This necessitates

singing full voice, although not necessarily fortissimo. And the singer must really deliver.

However, no matter how glorious the voice, the performer must be telegenic. Many famous radio artists lack television appeal; their appearance disillusiones the audience.

There is one other qualification for the television singer. She must be a competent actress and "act out" each vocal selection. Costumes and props are utilized with effective results.

An educated audience will appreciate good performances of all types of music, providing the music is not dull in character. The Television Workshop of New York City has used many fine singers on its programs.

Their success has been due to the fact that in addition to choosing very competent singers they chose varied programs containing music which could be interpreted with dramatic effect.

Background music can be a great asset to every type of program. It is up to the director to choose and utilize his back-

ground music to the best advantage. At DuMont the directors are fond of the "dissolve shot," two cameras focused on two different objects with the "dissolved" picture appearing on the screen containing both objects. It is also possible to dissolve one picture into the other. A novel effect is introduced to an otherwise conventional picture by dissolving the hands and keyboard of the accompanying pianist into the picture of a singer.

In this present non-commercial stage of television, large expense is avoided. A piano is used most frequently for accompaniment. Occasionally duopiano or organ is added.

At DuMont one works under tremendous batteries of lights and the heat is intensive. While rehearsing a violin solo it was found that the strings of the instrument expanded considerably. The pitch was lowered almost a half-tone. To avoid this, the violinist tuned her instrument sharp so that as soon as she started to play the strings expanded to the true pitch. Incidentally, her performance was enlivened by camera shots of the fingerboard as she played.

Fortunately the heat is only "for the duration." New developments in lighting are ready and await production. Only war priorities stand in the way.

Undoubtedly, the close of the war will be the impetus for many innovations. Television, unlike other new developments, will create new jobs for the musician. Famous musicians will be brought into the home of the television viewer not only from television studios, but directly from theatres, hotels and concert halls. It will be possible to enliven and clarify orchestral works by putting the spotlight on the instrument playing the theme, in the style of the Bach Fugue in Walt Disney's Fantasia. In preparing and directing such shows the music director is indispensable, for he can follow the musical score and anticipate interesting camera shots of the musicians. Certainly television will aid the American composer. Men like Dante Fiorillo and Aaron Copeland will have new worlds to conquer.

As for the music director of Television, he will glory in his new exciting field for, in addition to all problems musical, he will be called upon to demonstrate showmanship as never before.

A Radio-Concert Singer Writes of Television

By JESSICA DRAGONETTE

WHILE there are certain family resemblances between Television and its predecessors, radio and motion picture, it is as new and independent as a new generation. You know it stems from the same roots but it is a completely new flower. The convex luminous screen that brings television into your home is different from the silver-screen because it brings you spontaneous action, and not canned film and record. This very spontaneous immediacy is its chief difference and particular charm.

The present pioneering phase of television makes great demands on the creative intelligence of director, actors, writers and camera crew. Team-work is the cue; you work in formation like a flying fortress. Each member of the crew is assigned his particular task, and the orders come from the director in the control room, like a pilot's orders from the cockpit, on the inter-com.

Television has been my hobby since the days my photograph was first televised. The progress since then has been astounding. Indeed, my recent series of first commercial telecasting with the Television Workshop at DuMont Station WABD has been an exhilarating experience. I had to select songs in the public domain and write my own material to avoid copyright infringements. While writing an original sketch called "V-Mail" I stumbled on a television natural—the monologue.

As for make up, some believe in dark blue make-up for eyes and lips, others believe in dark green. Both factions believe in panchromatic powder. In studios where there are cool lights, make-up involves other factors.

What to wear for television? Yellow, blue, brown, purple—all televise well if they are in contrast to the background. Black and white should be used only occasionally. Some care should be taken to place a blonde head against a dark background and to contrast a dark head with

a light background. Simple, well-fitting clothes are best.

What about program material? Since copyrights for television are not fixed and litigation may ensue, original material is a necessity. And inasmuch as television is mainly for home consumption, programs suitable for the home, rather for theatre enterprise, are in key. Soliloquy is effective; songs with action are good. The eye is easily bored it must be remembered. Originality and sincerity are of the essence.

Who are telegenic? Mainly the petite, the sympathique, people with personality.

Color will be added soon after the war. Let your imagination run riot. I predict that the screen as we know it today will disappear and that we will see our television in space.

TELEVISION: Then and Now

By DR. SIGMUND SPAETH

OVER ten years ago, when Station WGBS (founded by Gimbel Bros., and now out of existence) was experimenting with television in the old NBC studios at 711 Fifth Avenue, it was my job to sing a few songs of the Gay Nineties in costume. There was no way of checking on the results, as very few people had any receiving sets at the time. I was assured by my wife, who looked and listened in the next room, that it looked and sounded all right.

But it was not an easy job. One had to be very careful to stay put, so as not to get out of range of the camera. Needless to say this restriction was not conducive to freedom of expression. It was

impossible to get more than one person into the picture, and facial expression and details of costume must have been sketchy to say the least.

Recently I had a chance to try television again, and I am not exaggerating when I hazard the guess that it has come to stay. My second experience was by no means experimental. It was a regular commercial show, sponsored by Air-o-Magic Shoes, put on at the Du Mont studio, in co-operation with the Television Workshop and the Norman Waters Agency. There were four guests on the program, under my emceeing eye: Clare Luce, the blonde actress, just back from entertaining the boys overseas; Elizabeth Janeway, author of *The Walsh Girls*, fresh from *Information Please*; Jerome Meyer, the daddy of all quiz shows and final authority on home entertainment; and Edwin McArthur, orchestral conductor and pianist, also just back from a USO tour abroad. They were all able to stay in the picture, with a large sign in the background advertising the sponsor's product. We could all move with considerable freedom and, with two cameras working, it was possible to parade various models across the field of vision, to illustrate questions of visual significance. We were even able to group around a piano and do some tune detecting and play musical games.

This represents a big advance in a little over ten years' time. It would seem that for home use television is already a practical reality.

NEEDED: Good Programming

(Continued from page 1)

ming, not all television programs need be "live." But if television is to compete successfully over the long-run, it must provide good program fare to an audience used to the technical excellences of the movies and aural radio.

It is a fine thing that pioneer groups are already at work perfecting the techniques of production and exploring new subject matter for the television camera. The idea of television has already captured the public's imagination. Good programs, well-staged, professionally performed, pleasingly televised—are necessary to hold that interest.

How To Rehearse A Television Show

A WELL-KNOWN producer recently said: "The rehearsal is to television what cutting and re-shooting are to movie-making."

No truer words were probably ever uttered.

With motion pictures the producer has an opportunity to edit his product . . . to eliminate bad shots and have retakes made to his heart's content.

Even after its release, the picture can be recalled for re-editing, re-shooting, re-making. One sequence—a torrid kissing scene—was said to have been redone 200 times before it was exactly to the director's liking.

Not so with television! Once the scene is shot, once it passes through the iconoscope, the director's monitoring board, and through the station's transmitter, there can be no retakes, no editing, no cutting. The electronic impulses are shot into space—the product is on its own—to be seen with pleasure or disgust—by every person tuned to the program.

The only way to avoid programs which are artistically and technically bad is to schedule plenty of rehearsals. A rehearsal ratio of 16 to 1 is generally recommended. For a half-hour show, there should be a minimum of six hours of studio rehearsal and ten hours of line and business rehearsal. With a tele-wise group of actors and crews who are accustomed to working together, it is possible to cut the ratio to 8, and even 6, to 1, depending on the production. Shows which follow a regular weekly pattern or format require the least rehearsal time.

With a new show, say a dramatic program, no producer worth his salt—or his reputation—should attempt to produce a full-scale production without sufficient rehearsals.

Unless properly rehearsed, here's what you may find wrong during a telecast.

I. SCRIPT: May need rewriting. Sufficient rehearsals offer an opportunity to make changes, rewrite, tighten up the script generally.

II. ACTORS:

1. *Wrong Entrances:* Performers entering from the wrong side of the stage, getting in the way of your camera, giving you the wrong shots.
2. *Faulty Stage Positions:* Actors too far apart, with tendency to go "out of frame," a common fault with many television programs.
3. *Poor View of Features:* Actors holding their heads too low, or with backs toward camera, or at wrong angle, causing distorted view of features.
4. *Wrong Movements:* Performers moving about the stage too much; wrong cross-overs; moving too rapidly or too slowly; moving in wrong direction; making wrong entrances and exits.
5. *Faulty Casting:* Roles may need recasting.

III. STAGING:

1. Furniture and stage properties in wrong position.
2. Scenery too bright or too dark. May need repainting.
3. Stage business, too much or too little.

4. Costumes don't show up well. New costumes may be needed.

IV. DIRECTING:

Camera angles may need improving. Rehearsal gives director opportunity to try new shots which may help point up the drama, smooth out difficult shots and get them down pat with the cameramen. (The best-planned show may come off badly if the camera work is sloppy, if opportunities for good shots are missed.)

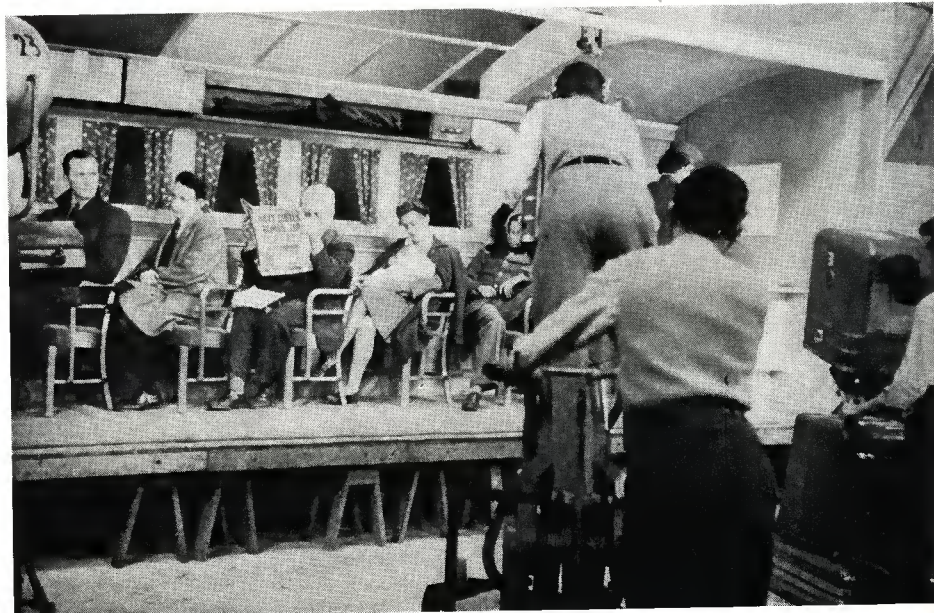
Sound effects need to be properly cued in advance and properly rehearsed so that they will come in at the right time. Poor timing may ruin a show.

Visual effects: Plenty of rehearsal time needed to experiment with special effects. Properly executed "effects" will enhance one's show immensely.

Title Cards: Novel ways of opening and closing your show through effective combined use of title cards, music, off-camera voice, and visual effects will give professional status to your video offering. Requires plenty of rehearsal time.

Motion picture film: Requires close co-ordination between the director and the film projection room, if film is to be successfully integrated into live show.

As in Motion Pictures, Television Utilizes Realistic Sets. The Interior of a Plane Was Constructed by WRGB for the Play "Flight to the West."



How can long, costly rehearsals be avoided?

They can if the producer has the following at his command:

- (1) A wide experience with all types of television shows;
- (2) A thorough knowledge of the studio equipment with which he is working, especially the television cameras;
- (3) A mind's-eye picture of how each scene will shape up on the television screen;
- (4) Performers who are camera-wise;
- (5) A rehearsal space — preferably with dummy cameras—where the director can put a show through its paces, especially after the first camera rehearsal.

How should a show be rehearsed?

To conserve precious rehearsal time, each performer should have his part thoroughly committed to memory before he enters the studio. The director should utilize the first rehearsal to check on stage "business," making such changes as are necessary; to check on camera angles which had been worked out in advance on paper; to check the settings, costumes and make-up.

Every detail that needs correction should be written down in a note-book, and referred to as soon as possible after the rehearsal.

Any questions regarding technical mat-

ters, such as sound, film, lights, video effects, or special camera work should be referred to the studio technicians responsible. The sooner you get straightened out on these matters, the better.

The next rehearsal, either on the following day or the day after, should take place at the director's office or studio. For this purpose the director-producer should have a room of not less than 400 square feet—equipped with piano, record player, and two dummy cameras on dollies. Here he can assemble his performers and discuss the weaknesses detected during the rehearsal and advise the cast of any script revisions, changes in business. Here he should criticize the movements of the actors, facial expressions, lack of voice projection, etc., and have the cast go through their parts, with the changes he suggests.

By your second camera rehearsal, your show should be taking definite shape, although it may still be rough in spots. By your third rehearsal you should have a smooth-running show. (Each camera rehearsal will have taken from two to three hours.)

By carefully rehearsing your show and carefully taking note of anything not exactly right, you'll avoid tearing your hair after the command, "Start Rolling" has been given. Instead, you'll be able to sit back, calmly draw on your pipe, and give your directions with the assurance that all will go well.

—Irwin A. Shane



Education by Television. An Artist's Dream of the 1870's.

MILESTONES IN TELEVISION'S HISTORY

- 1817—Selenium discovered by Baron Jons Jacob Berzelius.
- 1873—Telegraph operator May discovers that light sensitive properties of selenium could be converted into equivalent electrical values.
- 1878—Sir William Crookes invents the Crookes tube and demonstrate cathode rays.
- 1883—Edison discovers the "Edison effect," with an electric current made to pass between a burning filament and an adjacent metal plate.
- 1884—Paul Nipkow patented the television scanning disc.
- 1888—Photoelectric cells were built and demonstrated.
- 1906—Leo de Forest invented the three-element vacuum tube with a filament plate and grid.
- 1923—Vladimir K. Zworykin filed patent application on the first form of modern television camera tube, the "Iconoscope," in wide use today.
- 1926—C. F. Jenkins in Washington, D. C., demonstrated apparatus which showed far-off, moving objects, or shadowgraphs." J. L. Baird, in England, demonstrated television transmission of half-tone pictures.
- 1928—Television transmission over wire circuit between New York and Washington demonstrated by Bell Telephone Laboratories. First television drama, "The Queen's Messenger" broadcast from WGY's studios, Schenectady, New York.
- 1929—Vladimir K. Zworykin announced the invention of a non-mechanical receiver using a special cathode ray tube called the kinescope.
- 1930—First showing of television in a theater. Program broadcast from RCA experimental station, 411 Fifth Avenue to Proctor's Theater, 58th Street, New York City.
- 1939—Television service officially inaugurated with the opening of the New York World's Fair on April 30th.

“A Performer Speaks”

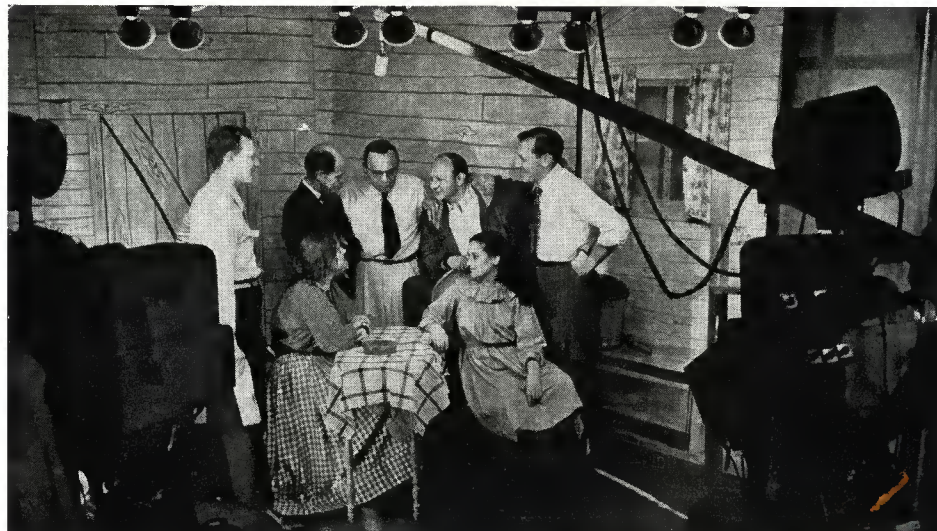
By PATRICIA MURRAY

(Patricia Murray speaks with experience as a television performer dating from the 1939 World's Fair. She appears every Wednesday on the Lever Brothers program from Station WABD.)

OF all fields of endeavor which depend on perfect coordination of every participant to attain the desired results, television probably ranks first and foremost.

It's anything but a one-man proposition. Every participant in a production should have the greatest possible knowledge of the overall show. Were this so, the director's headaches would be drastically reduced in number.

The television director often is faced by handicaps physically impossible to overcome. For example: Limited rehearsal periods may prevent him from doing what he wants to do, the way he wants to do it. A television director might be completely in accord with the idea of assembling both crew and cast for a conference prior to first camera rehearsal, but the lack of sufficient time may prevent it. Purpose of such a conference would be to inspire every individual with a sense of responsibility to the production as a whole. Director would become "one of the boys." He would outline the schedule of action for benefit of technical crew and cast alike. Suggestions might be offered, considered—then accepted or discarded as the matter warranted. Those accepted would be of benefit to the director. On the other hand, an explanation for those rejected would go a long way toward giving the show's participants a better understanding of the medium, to its possibilities and its limitations.



Producer, Director, Writer and Actors Hold a Studio Conference Before a Rehearsal.

No actor should be permitted to begin a performance without a clear understanding of the television camera's limited depth of field. Directors have gone nearly mad, in the course of shows, when actors started meandering around a set, unconscious of the havoc they were causing on the television screens. Since, due to the small screens in television receivers, close-up shots are much easier on the viewers, it is desirable to use as many of these as possible. The closer the shot, however, the more limited becomes the depth of field. The nearer a camera approaches a group of performers, the more care must they exercise to stay in the same plane in relation to the camera's lens. In a close-up shot, an actor may throw himself completely out of focus if, in a scene with another performer, he steps a few inches behind his specified position. The camera man is unable to focus on the two performers unless they are parallel to his camera.

If actors are conscious of this limited depth of field in advance of rehearsals, so that every bit of rehearsal time can be utilized in familiarizing themselves not only with their lines but with their actions, confined within the necessary restrictions, the director will find, that his threatened crop of premature gray hair, is postponed indefinitely.

Constant awareness of the depth of field limitations is not the responsibility of group performers exclusively. The individual performer must exercise equal

caution. As example of this, the songster comes to my mind. For close-up shots, the singer should keep his hands at his side or employ gestures with side-way motion. The distortion of hands when extended frontwards, in a typical song presentation manner, is frightfully bad in the camera's picture. It reminds you of that "gag" snapshot you had taken on the beach last summer. You know, when your feet took up most of the picture, and your face peered out from between 'em, and you looked like the Fighting 69th's Prize Pin-Up Pin-head. Remember? Well, it can happen in television too!

In other forms of entertainment, a performer is able to practice in front of a mirror to get a very good idea of how his actions appear to an audience. In the movies, a performer can watch the filmed record of his work to pick up a few pointers for next time. But in television a performer can go on indefinitely making the same mistakes unconsciously, over and over again.

Consequently—and this is for the director's particular attention—when you're producing a television show, don't devote one hundred per cent attention to the technical beauty of your opus. . . . Give your cast a few pointers too.

Following a show, a disillusioned director can explain to his constituents how Mary X drove the entire production crew crazy in the course of the program by adopting a new pattern of action never

once tried in any rehearsal. Mary X, inspired with enthusiasm for the on-the-air show, introduced a few innovations into her act which threw the carefully planned camera schedules into wild disorder.

Well, the director "explains" and his constituents sympathize—but the television audience sits at home wondering why the show was so blurry and thinking perhaps that television isn't everything it is supposed to be anyway. It might have been very different if Mary X had shown something about the medium in which she was working.

One thing to remember in connection with this matter of director-performers relations is that the intimacy of television cannot be over-emphasized. Those engaged in the business picked up by the camera should forget the fact that their audience comprises hundreds or thousands of people. So far as the performer is concerned he is working for a small group of people assembled in a cozy living room. He must forget the fact that the group is multiplied hundreds of times. Perhaps the entertainer alone knows what constitutes the difference between a performance for a handful of people and that for a theatre-packed crowd. There is very little similarity. When dealing with a large audience, the performer *projects* himself. He must *reach out* to capture and hold attention and interest. For a small group, the performer's responsibility is lessened. In fact, it is almost as though the responsibility has shifted from the entertainer to the audience. The television actor may go through his role as though he and his fellow actors are all that matter. Obvious projection of his role is offensive to the viewers because all semblance to reality is destroyed. This point also applies to the announcer, or the master of ceremonies. The announcer who faces the television camera with the idea that there are many people watching and listening will make his announcements unnecessarily and unpleasantly impersonal and forceful. On the other hand, if he speaks as he would to the person he has met by chance on a street corner, he establishes a nice, free comrade sort of relationship between himself and his audience. This point should be stressed by the director from first rehearsal and ever afterwards.

Another point (this excludes dramatic programs in which the material must be rigidly followed in detail.) Because of the intimacy of this medium and the ad-

vantage of creating a friendly, informal atmosphere, performers should be allowed a certain amount of leeway with their material. In television it is not uncommon for an individual with much experience in other fields of entertainment to become panic-stricken at the realization that the televised on-the-air performance must be perfect. He knows there will be no chance for retakes. Reading from script is taboo, but he knows that his audience will be fully conscious of any line-prompting. He knows too that any facial expression denoting lapse of memory will be visible to watching eyes. As a result fright takes possession of him, his speech becomes stilted and staid, and his eyes, looking into the camera, are full of anxiety. Allowing the performer some freedom with his script would do away with such a situation. In stage revues, or musical comedies, it is not unusual to have actors' "slips" actually written into the show. There is one leading musical comedy star in New York today, whom I have never seen go through a performance without three or four "breakdowns" or "slips." The audience takes such keen enjoyment in watching something that does not appear *prepared* for the public viewing, that the good showman often takes advantage of such happenings and utilizes them for his own benefit.

And now, one last suggestion. At least one member of the cast, should have a system of signals for communication worked out with the studio or stage manager. Today, there are two signals, lifted bodily from radio production, that are used in television production. They are the signals for increasing or decreasing the tempo of the show. The former is in-



An Office Television System of the Future as Foreseen by an Artist of the Past. Year of Print, 1887.

dicted by a whirling motion of the studio manager's hand, the latter by drawing his two hands apart from one another, to give the impression of stretching. That's fine, so far as it goes, but it should go much farther.

To be specific, in a recent television program, one of the performers, in the course of walking to a certain position, brushed aside a curtain which had been masking a small bank of lights. The effect was immediately evident to those watching the camera's picture. But this was a case which was out of the studio manager's hands, for he could do nothing without getting himself in the picture. On the other hand it was a situation which could have been rectified in a moment by one of the show's participants. Eventually one of the cast realized what had happened. A quick flip of the curtain concealed the lights satisfactorily but only after the crew had gone through some wild gymnastics to get the idea across . . . and only after the show had proceeded for several minutes with some very faulty lighting. Had the studio manager worked out a system of signals in advance with one of the cast, a lot of hectic worry and disturbance might have been avoided.

From the performer's standpoint, it is anything but quieting to watch the studio crew engage in weird and frenzied motions while he's trying to concentrate on a script. The performer first wonders if he has skipped ten pages of manuscript, or if, horror of horrors, he is losing something. All in all, it's overwhelmingly difficult to go through actions and to speak lines and, at the same time, reserve a section of the mind for other things. Therefore, if a director is conscious of the slightest possibility of any mishap, he owes it to his cast and to himself to see that communication between that cast and himself is possible. Those communications, of course, would be established between the cast and the studio manager (who takes orders from and represents the director in the studio during performance. The director, at this time, is located in the control room.)

As time goes on, this director-crew-cast cooperation is bound to be recognized for its considerable value in television production. Any steps that can be taken at the present time, however, to encourage its growth will handsomely compensate the director for his efforts in its behalf.

ADAPTING A RADIO PLAY FOR TELEVISION

By TONY FERREIRA

Associate Producer, Television Workshop

THROUGH audience polls it has been determined that dramatic programs will play an important part in commercial television in the postwar era. Such presentations have been given preference over all other forms of entertainment by the audiences of WABD-DuMont and NBC in New York, and WRGB-General Electric in Schenectady.

With the rights to most legitimate stage plays tied up by the motion picture industry, network and agency executives might well ask where the tremendous amount of material for postwar video dramas will be obtained. The answer might well be, "right in your own files."

Recently, The Television Workshop of New York City began a series of mystery thrillers over both WABD and WRGB. Because of the high royalties demanded for most Broadway shows, The Television Workshop directors turned to little known one-act plays, original material . . . and discarded radio scripts.

The first call for such material brought numerous manuscripts, but one piece particularly appealed to the Workshop directors. It was a little opus entitled "The Eighth Step," a radio show written originally for the Columbia Workshop by a talented young writer, John Hugh, of the Donahue & Coe Advertising Agency, New York City.

Since it was psychological mystery thriller, the play was right for the Workshop series . . . but there was a major problem. Hugh's script which had been written for an "audio" medium had to be adapted for the "video-audio" medium, television.

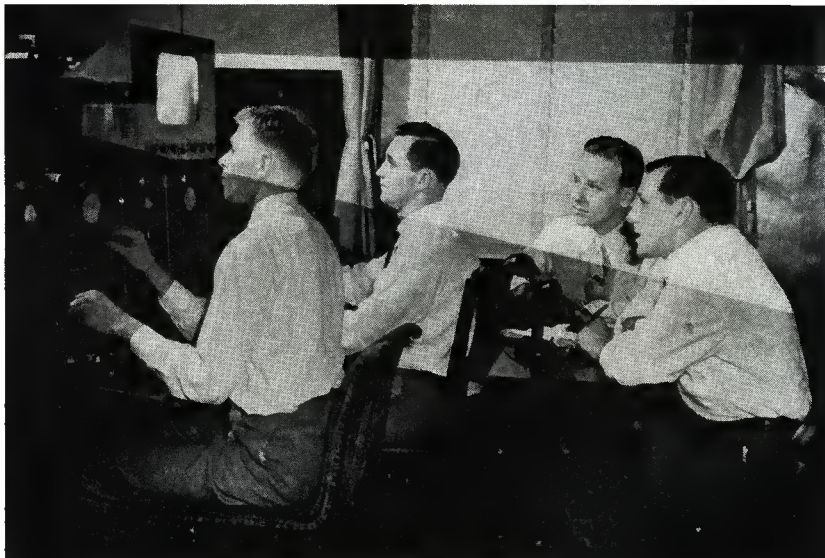
In writing his script for radio Hugh had planned the usual radio devices. The script called for lighting and thunder, musical bridges and



Writer John Hugh Discusses His Script With Workshop Staff.



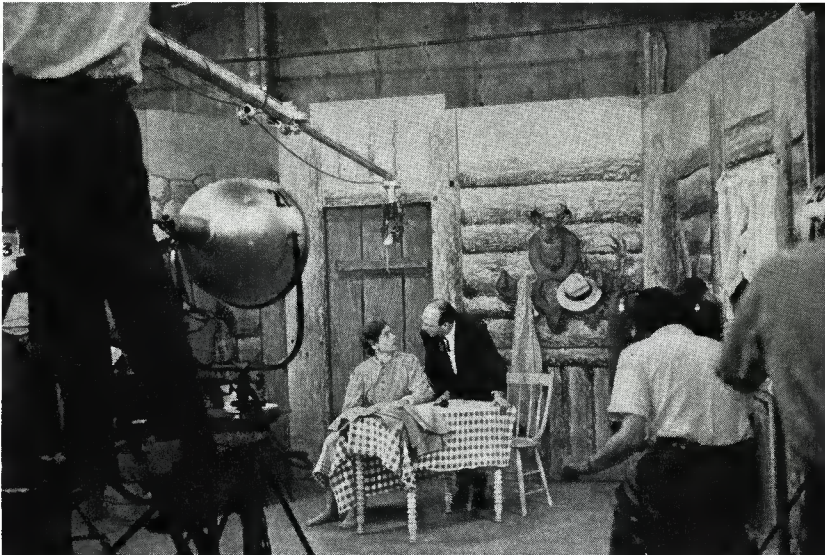
Auditions Are Held at the Workshop Studio.



The Show Finally Goes on the Air.



Daisy, a Demented Hill-Billy Girl Fearfully Watches the Torrential Rain.



Out of the Rain Comes the Parson to Tell Ma Her Brother Was Found Dead.



The Parson Accuses Daisy of the Crime, but She Merely Mutters: "I Didn't Do It."

sundry other sound effects; the play opened by a stream in a valley with the body of a dead man lying in thick mud (nicely handled in radio by the narrator), with the action then taking place along the countryside, up a high hill to a shack, and finally, in a barn by the side of the shack.

For television, the script had to be cut down to one set; the action had to be concentrated in one spot without detracting from the dramatic value of the piece as originally written.

To Sanford Meisner, the Workshop's drama director, went the job of adapting and staging the script for the new medium. Years of experience on the Broadway stage as director-writer-actor were brought into play as Meisner set about the task of adapting the radio play for television.

When he had completed his first draft, Meisner brought the script to the Workshop for a conference with Hugh, the writer, Whiting Thornton, the scenic designer; Irwin A. Shane, the Workshop's executive director, and myself, in charge of production. Here final plans for the production were agreed upon, with the action to take place in two sets, an interior and an exterior.

The casting of the play proved a simple matter with experienced Broadway actors engaged for the four parts called for by the author. Included were Donald Kuyes, now touring in "Rebecca"; Robert Harris, seen on Broadway in "My Sister Eileen" and "Brooklyn, U. S. A."; Ethel Craft, now with "Harriet," and Elizabeth Wilson, promising young character actress.

Eight hours of rehearsal were then held at the Workshop rehearsal studio and preliminary camera angles planned through the use of dummy cameras by the directors, Meisner and Shane. The experienced cast became letter-perfect in their parts and were now ready for the camera rehearsal.

DEBUT OF "THE EIGHTH STEP"

At studios of WABD-DuMont the entire group, directors, writer, scenic designer, and actors, were brought together for a first camera rehearsal. Over and over again, the players went through the various scenes as camera angles were worked out; bits of "business" changed for cleaner frames; group shots arranged for dramatic emphasis; sound and sight cues rehearsed for split-second precision timing; playing tempo determined for smooth panning and dolly shots.

Three hours later a tired group was ready for the television debut of "The Eighth Step." The job was nearly done.

That night at 9 P. M., viewers saw a smooth production of the mystery thriller, with little realization of the work and cooperation which had gone into its final presentation.

In the opening scene, the cameras slowly dollied in on a scene of a dead man lying in a muddy stream, and then tilted up the scraggy, bleak hillside, to the eight steps leading to the shack high up on the hill. Lighting flashed, thunder crashed; the audience watched intently, amazed at the realism of the scene being reproduced in a television studio.

Few realized that the entire setting was but an ingenious table model created by the Television Workshop scenic designer, Thornton,—an excellent example of the miracles that can be performed by imaginative scenic men in the creation of elaborate television productions of the future.

Most of the action after the opening shot took place in the shack, done in light gray, with the cameramen handling the production smoothly throughout; technical-director Edwin Woodruff's control-board manipulation perfectly co-ordinated the shot cues; and the actors played their parts to perfection to give the Workshop another successful dramatic presentation.

Following the WABD engagement, the play was booked into the General Electric station in Schenectady, the third in the Workshop series at WRGB.

The actors were brought together and, along with John Hugh, the few weak spots noted in the WABD performance were eliminated. Four more hours of rehearsal were held in the Workshop's studio and the production was ready for its touring engagement.

On Friday morning, September 7th, the troupe boarded a train at Grand Central, Schenectady-bound. During the four-hour train ride, line rehearsals were held.

At the studio the group was met by Bob Stone, manager of WRGB. The troupe then went through a "dry" rehearsal, minus cameras for the benefit of the GE crew and then rehearsed for two hours before the cameras.

Three hours later "The Eighth Step" was presented for the WRGB video audience, bringing to a conclusion a successful experiment which promises to be of great aid to the advertising agencies and networks in their quest for video scripts in the not-too-distant future. A look through their old script files may reveal hundreds, perhaps thousands, of plays which with the proper revisions, can be made into excellent television fare.



The Mother Denies Daisy Murdered Her Uncle and an Argument Ensues.



Daisy Yells, "Bill's Not Dead! Here He Comes. One Step, Two Step . . ."



The Parson, Now Insane, Admits the Crime, Runs Out Into the Night.

HAS DAYTIME VIDEO A FUTURE?

ALTHOUGH television is certain to replace radio as a night-time entertainment medium, many question whether television will replace radio during the daytime hours.

"If we have daytime television," declared Sam Cuff, DuMont general manager, at a meeting of the American Television Society, "watch the divorce rate go up."

On the other hand, Tom Hutchinson, former programme-director at NBC and now production chief for RKO Television Corporation, maintains that daytime television is a certainty.

Who is right?

The arguments against daytime network television run as follows:

(1) How can a woman do her household work—go about her ironing, bedmaking,

cooking, dishwashing—and at the same time keep her eye focused on a television screen? Today a housewife can tune in her favorite soap operas, listen to life in the raw, and at the same time perform her manifold household chores. Not so with television!

The second argument: Few women will be willing to darken their homes to watch a television program, which would further preclude the possibility of housework.

The argument concludes: Inasmuch as the daytime listening audience would be very small, limited almost entirely to those who are bed-ridden, retired or institutionalized, few manufacturers would be willing to spend advertising dollars to reach such a small, unimportant audience. Without a sponsor, there would, therefore, be no network programs, and consequently, no network "soap-operas".

OF COURSE IT HAS!

By NORMAN D. WATERS

Norman D. Waters, president of the Norman D. Waters & Associates Advertising Agency, is one of the founders of the American Television Society . . . and an authority on television matters.

My belief is that television will have as great a part to play during the daytime hours as radio has at present. Admittedly, there are certain technical complications, as well as psychological ones. Already the technical aspects are well on their way toward solution.

You often hear it said that people will not wish to darken their rooms during the day while the busy women of the house are attending to household affairs. I feel quite confident that television sets of the future will not require darkening the room in which the receiver is located. It is my theory that the problem will find a very simple solution in rear projection and localized darkness, by means of a "hood" around the screen to shield out light. Technical development is bound to result in greater brilliance of the image. It is a well-known fact that the eye adjusts itself

to the lighting conditions of what it is focused upon, therefore the hood idea should be entirely practical.

In the field of commercial motion pictures, hoods have been successfully used around screens while movies were shown in stores and at exhibits, where normal lighting generally prevails.

Proof that this is practical can be found in the use of training films by the Armed Forces, where screens up to four feet in size are used in mess halls, barracks and even outdoors.

It is my conviction, however, that daytime television programs will be entirely different from the technique of handling programs for night time hours. Programs on the air during the day will have to be handled so they can be listened to with as great interest as they can be watched. For example, even a woman busy with household work can occasionally glance at the television receiver to see what the artists look like, thus enabling her to get much greater



A CBS Model Demonstrates Her Beach Outfit for the Cameras.

enjoyment from the "sound" portion of the program she would hear while she is not at the receiver. The Chinese say that one picture is worth ten thousand words; this is true of television as well. One glance is worth 10,000 radio programs . . . well, certainly ten radio programs, anyway!

This is not based upon theory, but fact. I have studied the habits of television set owners today, and know it to be true that they frequently read newspapers and books, and even play cards while the set is in operation. An occasional glance satisfies the great curiosity of the human mind concerning the appearance of people on television programs. Some of the programs already can be listened to with satisfaction, without turning down the lights and concentrating completely on the programs.

What does this mean to future users of television? It means simply that program hours will not be as limited as some people have believed; it means that national advertisers and department stores will be able to take advantage of television at lower daytime rates, and use it profitably to put across their commercial messages to the public, particularly to women who buy the lion's share of all merchandise sold to the consumer.

Meet the Television "Angel" ... the Sponsor!

ON BROADWAY the person who foots the bill is referred to as the "angel."

In television, as in radio, he has the more dignified title of "sponsor."

In either case, it is the sponsor or "angel" whose checks put into action large crews of writers, actors, directors, producers, scenic designers, costumers, music arrangers, and dozens more talented persons . . . whose one purpose is entertainment.

In the theater, the "angel" sometimes expects to recoup his investment. In television, the sponsor expects higher sales for his product.

You've no doubt met a radio sponsor. But have you met a television sponsor? Probably not—video "angels" have not been too numerous so far. But there have been a sufficient number of the species, since 1939, to give us a composite picture of that rare individual, the television sponsor!

The best time and place to observe his psychic behavior is not at his club or his place of business, but at the television studio itself, especially at a first telecast.

When the sponsor enters the studio for the first time, his benign face expresses enraptured awe as he looks about the busy room filled with such strange new, shiny devices as cameras, mike boom, spots, overhead lights, cables and people of every description, in all kinds of costume and strange make-up. The place seems alive and full of electronic excitement. Television . . . it's wonderful!

As his show goes into rehearsal, he timidly watches the hectic proceedings, hears his director speak orders to actors and studio crew. Something about panning right, dollying in, lateral distortion, framing the picture, taking one, taking two, lap dissolving, cutting to studio sound, rolling film, shading the picture, split focus, and other jargon of the television trade. Although the language is new to him at first, he quickly picks it up and is soon able to split television infinitives without blinking an eye-lash.

For his television "premiere" he has invited all of his special friends and clients. He arrives early at the studio, tingling with excitement, seeks out his director, pats him on the back, and asks how things are shaping up for the big telecast. The director then introduces him to the cast, which is followed by a round of handshakes and much bowing. The sponsor tells the players how well they came through during the rehearsal, and invites them to join him with his guests in a bit of a drink after the show. They all accept, of course.

A few minutes before air-time his guests arrive. They, naturally, expect to see the show from the studio itself. The sponsor, aiming to please, leads the way to the studio, now filled with blinding white brilliance shooting down from the overhead light clusters and studio flood lamps. The studio is a bee-hive of activity, with actors hurriedly going over lines and swarms of technicians of all kinds making last-minute adjustments of mikes, moving furniture, setting up props, changing light positions, and testing equipment.

Like so many Indians, the guests stalk past the lights and cameras. Everything seems to be going well, when suddenly one of the guests trips over a cable, jerking one of the cameras out of its carefully-fixed position. The chief engineer, catching sight of the "Cook's Tour," spares no language in telling the sight-seers where they belong.

Meekly and profusely apologetic, the sponsor leads his friends to the cubicle-like viewing room, on whose polished door is the gold-lettered legend, "FOR CLIENTS ONLY." Dourly, they become reconciled to watching the show from the television screen.

In a matter of seconds the station slide fades—and the screen becomes gray. Suddenly there's fanfare and a silk-smooth voice comes through the F-M, while the first title card is faded on the screen:

"SAM WATSIT, INC.
Makers of Interesting Lingerie
PRESENTS
"BEAUTIES OF 1945"

Into the last title card is dissolved the handsome smooth face of the smiling announcer, who makes it known that the great epic is about to begin—"brought to you by that well-known designer of women's lingerie, Sam Watsit, of Sam Watsit, Inc."

The sponsor gazes intently at the screen, a wide smile covering his face.



Boys and girls of the chorus in a television show produced by the Charles M. Storm Agency.

His reverie is interrupted by one of the guests with "It must cost you a fortune, Sam, to be on television."

"It'll be worth it," is his matter-of-fact answer. "Do you know I'm the first manufacturer of women's lingerie to be on television? Think of that! Wait until my customers read about it in 'Women's Wear'."

The show gets under way with the beautiful models exhibiting their feminine allure before the cameras. It's not a bad show.

And every time the off-camera voice mentions "Sam Watsit, Inc.," Sam Watsit experiences a genuine thrill.

When the last "Beauty of 1945" has passed before the camera and the card marked "The End" is flashed, Sam Watsit's guests pat him on the back and exclaim: "Damn good show, Sam. Damn good show. Must've cost you a fortune for the talent, those beautiful girls. Must've cost you a fortune."

"Say, Sam, who was that tall red-head. I think I've seen her somewhere before. She's a real beauty."

"I don't mean to tell you things, Sam, but if I were you, Sam, I'd get Lucille Rosary. She's really good. And she won't cost you more than \$1,000 a broadcast. Would you like to use her? I'll give you her number if you do."

And so each of the guests plies Sam Watsit with suggestions and ideas for future shows, which, in turn, are passed on to the producer-director, who is faced with the agonizing job of turning them down without antagonizing Sam Watsit.

As they are more anxious than ever to go back-stage, the Sponsor seeks out the station manager and goes into a huddle with him. "Look," he says, "there are a lot of biggies out there from Field's in Chicago, Hudson's in Detroit, and other places. Couldn't I take them into the studio for just a few minutes," he asks pleadingly.

"Okay, okay," nods the station manager, "just keep out of the crew's way." Triumphantly the sponsor leads his guests into the studio, where they find the cast ready to leave for the dressing rooms. Heavy lipstick, purple make-up, and heavy sweat cover their features.

"Girls, I have something for you," says Sam Watsit, handing the models a package of rayon underthings. "And what's more, girls, you're all invited to Sardi's for a bit of a drink."

"Thank you, Mr. Watsit," reply the girls in chorus.

"Yes, must cost you a fortune, Sam, must cost you plenty," reiterates one of the guests.

"Yeh, but think of the publicity . . . think of being among the first in television . . . like Columbus discovering

America . . . like the Wright brothers flying for the first time . . . like Marconi sending his first wireless message . . . like Alexander Bell talking through the first telephone. Yes — television is wonderful!"

And off to Sardi's they go to discuss television . . . and horses.

"Serving TELEVISION . . ."

By A. ELIZABETH BROWNING

RADIO has its numerous independent production agencies, but it remained for television to produce the Television Workshop.

Ever since its inception in October, 1943, The Workshop has been a busy place. More than 50 of its commercial productions have already been televised, some featuring the country's leading stage, screen and radio artists, including Jane Withers, Guy Kibbee, Jessica Dragonette, Phil Regan, Marjorie Lawrence, Canada Lee, Dr. Sigmund Spaeth, Claire Luce and numerous others.

Its varied clients include advertising agencies, advertisers, department stores and television stations throughout the country.

In addition to its commercial programs, the Television Workshop produces a considerable number of sustaining shows for experimental purposes, the latest being a dramatic series, which won the critics' praise as the best live shows ever televised via DuMont. So successful did the experiment prove a 13-week series will be presented at WRGB, the G-E station in Schenectady.

Looking forward to rapid postwar expansion, the Television Workshop has already trained numerous script writers, producers, technicians, announcers, emcees, model builders and has recently added several Broadway directors to its staff, including Sanford Meisner.

The Television Workshop produces complete program packages or as much of the package as is desired, whether it be the program portion, the commercial, the script, the settings or props.

Speaking of props, the Television Workshop has one of the largest collections of

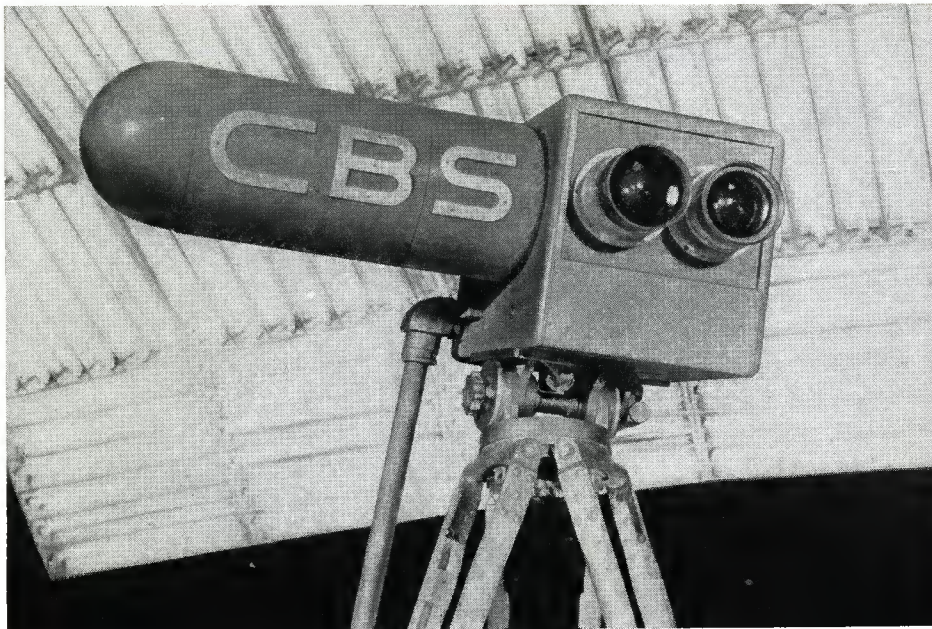
television props in the country. In its prop rooms one will find everything from grand opera stars, whole companies of them—in miniature—to the entire American Navy—in miniature. Every type of aircraft, warcraft, tank, gun, jeep and truck is to be found, as are uniforms, costumes and what have you.

Its research material includes newspapers, magazines, sheet music, theatrical posters and programs, and prints dating back to the Revolutionary War. During the Republican conclave CBS Television placed a hurry-up call for scenes of early Republican conventions. Within a few hours scores of priceless items, including newspapers, political cartoons and rare photographs were delivered to CBS for a program that same night.

A thorough study of television in all of its program phases has been made by the Television Workshop, the findings of which are now being prepared for publication in book form. To advance retail television, the Workshop has devised a plan for window and interior video screens and has retained Donald Deskey, noted New York industrial designer, to produce the finished renderings.

The program of the Television Workshop includes plans for a postwar remote pick-up studio, several traveling stock companies, a program laboratory, and a course of instruction for its department store and agency clients.

As the name implies, the "Workshop" is an organization built around the idea of programme-experimentation and development for the purpose of "serving television through better programming."



A CBS Color Camera

WHAT ABOUT COLOR?

By LELA SWIFT

(In the absence of Peter Goldmark, CBS's famed color expert, Lela Swift, his staff assistant, prepared this informative article on color.)

THE word "color" falls into the shop talk of the television trade with a pronounced splash, generating much speculative opinion. But color television is no longer a subject for speculation. It is an accomplished fact. On August 29, 1940, Dr. Peter C. Goldmark, Chief Television Engineer for CBS, broadcast a new system of television in brilliant color which he had developed, using the same width of channel as black and white. From July 1941 to April 1942, color transmissions were broadcast as part of the regular daily schedule from the Chrysler tower to color receivers. At demonstrations color slides were transmitted, as well as live outdoor scenes picked up by a color camera from the windows of the CBS Studios at 15 Vanderbilt Avenue. Transmissions were curtailed only because of the urgency of war work which was undertaken by the Laboratories at that time.

What is color going to mean to the public, the advertiser, the broadcaster . . . to television?

Color is beauty. It means seeing the red

of a dress, the blue of a sky, the green and gold of a spring day, instead of various flat shades of gray. To the public it means heightened pleasure, greater entertainment. To the producer it means an added dimension, another tool with which to conjure up mood, emotion, harmony, contrast, realism, fantasy. To the advertiser, it means a method of more interesting display, a greater form of stimulus, and a greater response to that stimulus in terms of sale.

Color is extra visual information. It brings to life details that would be lost. In black and white television color values are translated into gradations of gray, black and white, according to their intensity. Since two entirely different colors can have the same degree of intensity to the eye of the camera, they will appear on the screen of the receiver as the same shade. Thus a green and red dress may appear as a solid shade of gray. In color television, a green and red dress is a green and red dress. For the advertiser this means greater justice for his product. It means a more exact, lasting and quickly-recalled picture. A blue and white package of soap flakes seen at home on the television receiver will easily be recognized on the grocer's shelf.

Color is higher definition. Objects are more easily distinguished from each other because they are clearly outlined by their

difference in color. This means the elimination of eyestrain caused by the effort to identify all parts of a picture reproduced in various shades of gray. It means the public can view television more easily and more continuously.

What will color mean in terms of cost? Will it be so expensive to transmit, produce and receive as to be commercially prohibitive?

CBS color television as demonstrated before the war was a trichromatic system, utilizing electronic scanning, together with a rotating drum at the camera and a rotating disk at the receiver. It required no radical change in either transmitter or receiver design. The cost of transmission was only moderately increased.

When the state of the war permits, a new color receiver will be introduced. This receiver, employing a small projection tube and a rotating color disk, will be equipped to receive programs both in color and in black and white. There may be certain conditions under which color will offer no particular advantage over black and white—for instance, in televising a black and white scene such as a chart or a photograph. Whenever it is desired to receive black and white instead of color for any reason whatsoever, the viewer will need only to flick a switch on the receiver. He will then receive black and white pictures on black and white standards. This is not absolutely necessary, since black and white can be transmitted on color standards and received as black and white. The switch is provided in order to make full use of the fine detail provided for black and white by black and white standards. (However, there are very few instances in life of pure black and white with a total absence of color. White reflects reds, blues, greens and other colors which are near it.) The extra cost color will impose on such a television receiver will probably vary from 10 to 25%. Since the cost of the addition of color will be more or less standard, the percentage will vary with the cost of the receiver. In a smaller, less expensive model, the proportion might be as high as 25% of the total cost. On the other hand, the cost of color would be only 10% of the price paid for a large, projection type receiver.

Television production will be little affected by extra costs in the use of color. There it will differ from the production of color films, where costs are definitely

higher. Color television will cost little more than black and white, and perhaps even less. In producing a show for a black and white camera, constant care must be maintained to select colors that will contrast properly and will not fade into the same shades of gray at the receiver. With the use of color, costuming and props can follow the needs of the production and contribute their proper share to the final picture.

Will color be ready to go forward when the urgency of war work is decreased and television gets the green light? Although

both color and black and white pictures can be and have been transmitted on the present 6 mc. bandwidth, it is the opinion of CBS engineers, as well as of many others, that wider channel television would permit pictures with twice as much detail in black and white and in full color. It is also their belief that wartime progress has opened the way for this improved television. IRAC (Interdepartmental Radio Advisory Committee of the United States Government, a group of experts which includes officials with access to every phase

of secret wartime developments) lists among its provisions a proposal for television channels 16 mc. wide.

CBS plans to resume experiments and work on color standards of 525 lines, 60 frames and 10 mc. bandwidth as soon as wartime restrictions are lifted. It is certainly expected that color will move just as rapidly as black and white. And once television takes off its smoked glasses and views the world in full, natural color, the public will not be satisfied with anything less.

Writing for Television

By HARVEY MARLOWE

THERE are a great many factors involved in writing a play for television, but most important of them all is to remember that you are writing for a completely new medium. There are certain similarities but if you start out with the thought in mind that this is a new art, the result will be far more original and greater in scope.

You will encounter limitations and advantages in television. Therefore, in writing specifically for television you must play down the limitations and play up the advantages.

Now on question of cast. Many writers have been afraid to write in a large cast because of the limited scanning scope of the camera, but it's certainly not necessary to limit your cast for that reason alone because by intelligently allocating the dialogue, exit and entrances of the actors so that the cameras do not have to encompass more than two or three sectors at a time, the director can safely vary his shots and maintain reasonable close-ups. Usually when a director is faced with a large group of actors (say four, five or more), he will almost always use a long shot to include them all in camera range, but then this is not always necessary. Remember that the focal point of interest is usually around one or two people and it is a simple matter to get some close-ups of these people, so that the audience viewing the show will know from whom the

dialogue is emanating and not have to guess. And then again, the facial expression of an actor can lend immensely to the lines. There are a great number of effects that can be created on television that, with the exception of movies, can be created no where else. As a matter of fact, in my own efforts in writing television scripts, I usually think of several interesting effects and write the play and dialogue around them. But at the same time, one must be careful not to sacrifice good drama for the effect.

Still it is very difficult to resist the opportunity and freedom we have today of experimenting with new and different ideas. The enthusiasm and daring of the technical staff is at high pitch, and their interest and cooperation in the outcome is always assured.

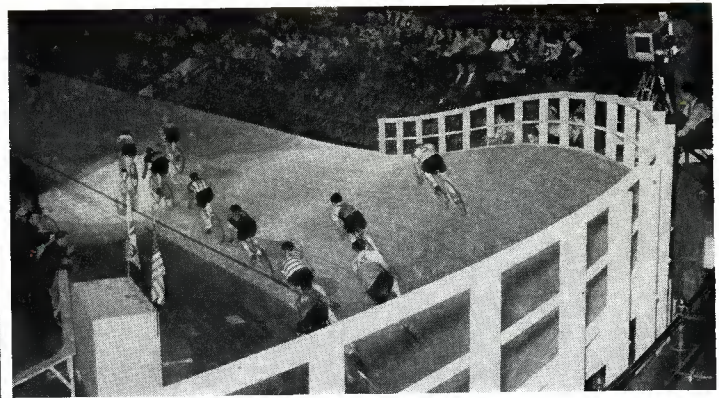
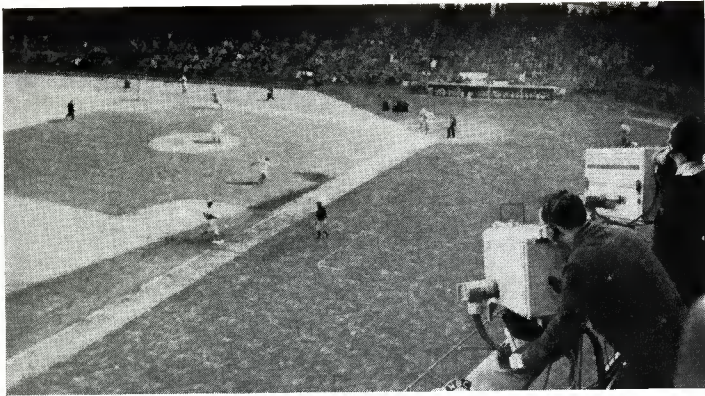
Remember that in the not too distant future we will be chained by the standards and demands of the sponsor. This is our day! Make the most of it.

Let me illustrate but one effect that I recently successfully obtained in a drama I directed for WOR at DuMont Studios. Called "Miracle at Blaise," by Josephina Niggli, the action takes place in Occupied France. Claire Luce is in argument with a Frenchwoman quisling. At a given moment Claire realizes that she must kill this woman in order to obtain a curfew pass which the quisling holds and also to prevent her from betraying her and her kin to the Nazis. Camera No. 1 has the pic-

ture in medium close-up. To indicate the thought we have a single flash with camera No. 2 on a wicked-looking knife on a table in full close-up. We cut back to No. 1 and Claire is seen slowly walking out of picture frame (dialogue is kept up throughout all this). Next close-up on No. 2 is as her hand slowly closes over hilt of knife. Back to No. 1 on quisling. Next shot on No. 2 is the knife framed on Claire's back. This shot is kept as she slowly moves away from camera toward quisling. She raises the knife. Blackout. Music up and out. Next picture Claire is seen bending over body, as she lifts the curfew pass from her pocket. This is but one of the many effects a writer can indicate for a director to create.

There is also no reason to limit the number of sets. It is a simple matter to pan cameras from one set to another, assuring perfect continuity. This is one clear advantage that television holds over the theater. There are no curtains here to ring down for change of set, thus there is no break of interest at some climatic moment in the play. However, at this early stage of the game, it would be wise not to go berserk as to the number and quality of the sets.

In the search for new and original scripts for television, there is no reason to overlook the thousands of one-act plays already on the market and the hundreds of thousands short story material lying around. Intelligent adaptation makes them into very excellent television scripts.



SPORTS ON TELEVISION

NEXT to the televised drama, sports events will probably occupy the "videoists" second place of interest.

Survey of listener preferences by NBC Television and General Electric television station, WRGB, indicates that to be the case at present.

The reasons for the interest in televised sports are obvious:

(1) Sports events are popular with a large number of people.

(2) The fan has an opportunity to get ring-side seats at championship prize-fights, football games, world series, polo matches, swimming meets, tennis tournaments and other sporting events without paying astronomical prices for tickets, without waiting in long lines, without waiting hours for a place to park his car, sitting on hard seats in the blazing hot sun or in freezing, cold, rainy weather—depending on the event.

(3) A television viewer gets a clear, unobstructed view of the action.

(4) Unlike watching the newsreels, the television fan watches a televised

prize-fight without knowing the outcome until the final round.

5) The fan is seeing something taking place contemporaneously—at the very same time he is watching his set. He is seeing news—sports news—in the making!

The televised sports events from Madison Square Garden by NBC are reported to have brought the heaviest mail of any response from listeners.

So popular have prize-fights proven as video fare, that Station WRGB at Schemectady sets up a boxing ring in the studio once a month. CBS Television has done likewise on occasion.

According to many sport fans, a good boxing match is more exciting over a television receiver than it is at the ringside. By proper placement of cameras—and with a producer who knows the ring and customer psychology—one can get full close-ups of the fighters as they trade blows, close-ups of their faces as they register pain or surprise, long shots of the ring when they are sparring—taking the

spectator right up into the ring, or 20 feet from it—all of which makes for much emotional human drama.

The same can be done for a wrestling match, with all the grunts and grimaces registered on the video screen.

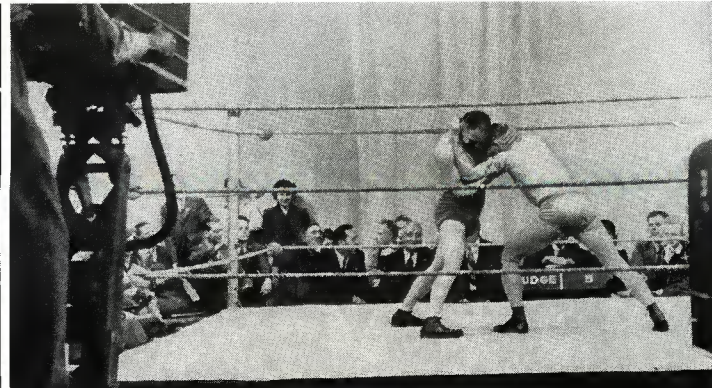
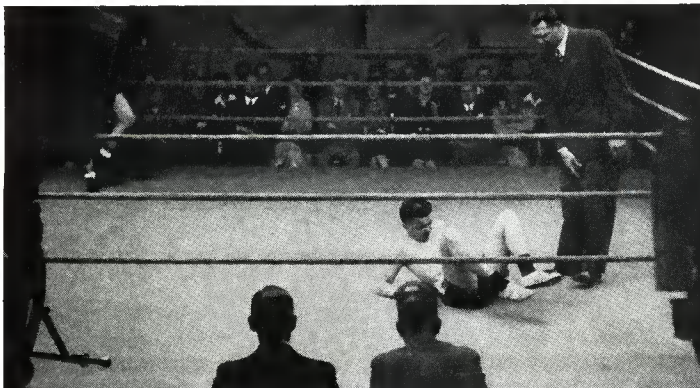
Football games have been successfully televised in the rainiest and darkest days—by the use of RCA orthicon camera, which can pick up pictures in any amount of light.

Will sports promoters allow television to bring their athletic events to the millions of set-owners in the postwar period? Won't that reduce paid attendance? Well, Mike Jacobs refused to permit broadcasts of his prize-fights for many years, but when he finally succumbed to the financial inducement proffered him, he found that far from reducing the number of cash customers, radio whet the appetites and brought bigger and better gates.

The same will probably hold true for television.

Among the competitors for exclusive broadcast privilege will be the motion pic-

(Continued on page 46)



Applying Film Techniques To Video Production

By NORMAN ROSEN

THE motion picture offers the dramatic producer the greatest latitude in auditory and visual techniques. Within seconds the film allows us to change from city, to woodland, to mountain, or to the seashore. Since there is no necessity for a continuous production, a sequence may be completed in either the same day, the same week or even the following week, and, when the film is finally edited, the sequences and scenes are put in their logical order. Yet the completed picture viewed by the audience has continuous action, although some time may have elapsed between the shooting of each scene.

In television this technique is obviously out of the question; for it is impossible for the television director to edit the logical order of scenes at his leisure. Television, like the stage, is confined to the interior of one to possibly five sets, and the action is accordingly limited. In changing from scene to scene, and in camera movements such as "dolly shots," the timing element of a continuous medium like television is very exacting. Unlike the film, there are no retakes and no "protection shots." However, when the production is being televised, it must be as even-flowing and as near "movie-type" perfection as the medium will allow.

To achieve this continuity the actual use of film in "live" television productions may help solve many problems; on the other hand, since the television picture itself in many ways resembles that of the movies, it follows that techniques used in making motion pictures can be adapted to advantage in building television shows.

The direct use of motion picture film has already proved itself an important aide in television programs. When a long shot on an exterior set is desired, prepared film footage has been helpful, for it is quite simple to dissolve from an exterior long-shot on film into a television studio interior, thereby fully establishing the desired orientation of place. The same effect may also be achieved without film, by dis-

solving from a televised still photograph to the interior shot.

In other cases, motion picture films carefully prepared in coordination with the program prove an effective device during scene shifts in allowing sufficient time for the production to move from one set to another.

A particularly effective shot may be achieved through the combination of off-stage narration, the televised film scene and the proper background mood music. For example, should we desire to fade-in on an exterior long shot of a spacious estate and portray to the audience the life within the house, we may easily do so. The narrator will give description, the picture will give location and the music will coordinate these in the desired mood.

In motion picture production, one of the most effective methods of getting the desired emotional reaction from the audience is through the use of the close-up. It can be very efficiently used in the "classical" or suggestive exposé of events in such a way that although the audience does not see the complete details it responds emotionally to the suggested action. For example, we have a close-up of a hand with a knife striking downward, a close-up of a face in anguish, another of running feet, and another of blood dripping from a body on to the floor. Through this short sequence it has been suggested to the audience that a murderer has killed with a knife, fled and left the victim apparently dead. This suggestive technique requires very little space and very little scenic artistry, and the sequence can very easily be portrayed within the limitations of television.

With the introduction of the so-called process background in motion pictures, that industry has been able to solve many bottlenecks arising from outdoor "location" shooting as called for by the scenario. For the past ten years the major studios in Hollywood have been experimenting with this and they have finally perfected process projection equipment which has proved it-

self to be a great time and money saving factor. Now it is possible to create the desired lighting effect in the studio even though the script may call for an outdoor set. To do this, use is made of triple-head projection units, gigantic 62 x 300 foot process screens and condensing systems combined with carbon-arc lighting. The work of scenic artists in designing proper foreground and background effects has vividly brought the real thing into the studio through the use of an artificial medium. The miniature department by its creations of miniature sets used in conjunction with process background has also proved itself to be worth its weight in gold. In addition the sound department has lent its great ability to create for the ears of the audience the correct suggestive set sounds. Through the coordination of process backgrounds, scenic artistry and miniature sets together with the sound department's library of sound effects, the proper visual and auditory impression may be given to the audience. In short, through the ingenuity of the allied arts, we have recreated the life and sounds of the great outdoors in the studio interior. The television director can fortunately benefit from these already proved techniques developed by the motion picture industry.

The limitations of television can be overcome through the ingenuity of the scenario writer and the program director. The devices used to overcome these limitations will very likely lead to the development of a new technique in television production.



A French Artist in the 1880's Conceives Telephone Television. Published in the Magazine *l'illustration*, 1881.

Shooting Television With A Still Camera

By JERRY SALTSBERG
Staff Photographer

Television brings to the news publicity photographer special problems which require much test shooting on his part. By far the most common complaint from those that use still photos is that finished prints, while having all technical requisites of good photography, "do not symbolize television." With a little experimentation the still man on assignment at a television studio will find that if he remembers to get behind the tele-camera, lights, and mike, he can frame the stage and, shooting between the crew, capture the essence of the television stage atmosphere. There is enough light reflected back onto the crew from the throw of the stage lighting to give a minimum of shadow detail so necessary for good print quality. With Eastman Super Panchro Press type B film, a normal well balanced negative can be made at 1/75th of a second at f:11. Of course there is so much latitude in present day films that we have made printable negatives at f:22 and f:32, an a D-76 developer for maximum time, and printed on Kodabromide using D-72.

There are times when the photographer will be called upon to use flashbulbs in the studio. Once again the main consideration must be given to effect. If the foreground of your picture receives the main impact and volume of the flash, you may lose the magic created by the scene before your eyes. However, if additional lighting is used discriminately, it may greatly enhance your picture. Take the gun from the camera and fire it upwards or downwards. Thus while exposing for the background under natural stage lighting, the relatively slow exposure for your flash will not result in a chalky foreground and the general illumination of the scene will approximate the view you see. Illus. No. 1 shows the usual type of picture made with the stage lighting alone; 1/100 at f:11, developed 18 min. in D-76, printed on Kodabromide F2 paper, in D-72. Illus. No. 2 shows the same

scene photographed by flash. A No. 0 Wabash flashbulb was fired at arms length from the camera directed downward onto the floor. The exposure, development and printing time were the same as Illus. No. 1. A word of caution here. Never shoot a flash off in a studio unless you are sure that all tele-camera lenses are covered as you may overload the iconoscope.

Many times drawings, pictures and even the sets and backgrounds of a production figure prominently during a performance. When preparing illustrations of this sort, it is best to make high contrast prints with lots of blacks and whites. Large masses can be better viewed than small pastel shaded lines. Colors do not view so well on the Kinescope, and black and white give best results. So much for the studio.

Now let us turn our attention to control room shots. Here we come to another

Staff Photographer Jerry Saltsberg Shoots a Studio Scene Without Flash Bulbs. In the Picture Is Robert Scull in "Designs for Tomorrow" Show Sponsored by Durez Plastics.



problem. Perhaps in making a feature story you are ordered to make a shot of the control panel. Obviously, flashgun has to be used here. However, shooting a bulb off in a darkened room will "light out" the image on the screen because darkness is needed for viewing. The simplest method to use here, is to set the camera up on a tripod, make your flash exposure for the machine and the people, and then make another shot of the screen itself on a separate sheet of film. The usual exposure is about 1/25th at f:4.5. When these two images are printed, you can neatly cut the screen image and paste it onto the finished print.

Pasteup and mounting are one of the many types of control that the photographer can exercise and develop as he goes along and finds the need for special effects.

We can close our session by discussing control printing on the easel in the darkroom. In picture No. 3 we see a straight shot of a control room. Picture No. 4 shows the effect of planned dodging in the darkroom. A card was cut in the shape of a light ray and placed upon the paper in the easel during the exposure. After a few tests we found the correct exposure for the general scene, and the correct exposure for the section of the print that was to be held back. When these two sections were properly exposed, we produced a print approximating the actual scene viewed in semi-darkness.

2: ADVERTISING AND MERCHANDISING

Interest High in Retail Television

By JOHN HAHN

Editor, the Bulletin of the NRDGA

THE future of television in the retail field, it seems to me, rests right in the lap of the television industry. It is necessary only to note the keen interest being manifested today by sales promotion managers and advertising executives in the large stores to prove that the retailers need only to be shown. Present conditions which have forced newspapers generally to limit their advertising space have furnished an unusually strong incentive for retailing to examine the postwar possibilities of other mediums.

This is the time, and I am sure the television industry is aware of it, for an all out demonstration of what television really can do for the retail store. There still are many questions which will have to be answered before television will become an accepted medium in store advertising. Perhaps some of these will be answered at the conference being held late this month in Schenectady, N. Y., where a program has been arranged to demonstrate how department stores can utilize television. Some 25 of the country's leading department representatives from coast to coast are to be witnesses.

Paramount in the minds of the retail advertisers is cost. To many, Television appears as a rather expensive medium if properly done, when considered from the viewpoint of the potential business it may bring to the store. Another is the development of programs, for many believe that store programs must have elements of entertainment if they are to compete successfully with the programs which undoubtedly will be put on by the national advertisers.

Will efforts to present such programs involve problems similar to those experienced by the motion picture industry? Should store programs be developed within the store itself? If so, will not this involve the purchase of expensive equipment and the hiring of high price talent and eventually bring them into competition with other televisors in order to hold personalities which become identified with the store? Or should the store arrange its programs through outside agencies? If so, can it be done effectively with less expense?

These are some of the questions I hear discussed when the subject of Television comes up. Accordingly, it would seem to

me that the industry can be of substantial help to stores by supplying sound convincing answers.

No one in retailing with whom I have discussed the subject of television expects that it ever will supplant newspaper advertising. But there are many who are ready to forecast that it can supply a needed medium, which some day may take its place along side the printed word which for so many years has helped stores build their ever increasing volume.

One publicity director believes it is the logical means for stores to recapture the vividness which he says department store advertising has lost.

Fall Brings Increased Activity By Advertisers on Television

The Fall of 1944 is bringing a large influx of new accounts to television, it being the general opinion that the time is ripe for television—especially in view of these prevailing conditions:

1. Air time can still be obtained free-of-charge from WABD-DuMont, WRGB at Schenectady, Station WBKB in Chicago.
2. Production and talent costs are lower than they'll ever be.
3. There is available plenty of top talent, including many "name" personalities.
4. There are no union problems.
5. Mistakes are not costly. The same blunders, come postwar, with audiences numbered in the millions, might prove severely damaging.

What does it cost an advertiser to use television today? First of all, air time can be obtained *free* from DuMont or G-E. The only cost, therefore, is your actual production expense. While some shows have cost from \$100 to several thousand dollars per telecast, many producers have found that superior type programs, the kind that get good notices in the trade press, can be produced today at a cost ranging from \$250 to \$500, depending

upon the show. This includes preparation of a satisfactory shooting script, professional talent, stage furniture and props, setting, costumes and expert direction. The same show, come postwar, will cost \$5000 to \$10,000 or more.

Why today's low cost? Everyone connected with television—from the station manager to the lowest-paid studio hand—is eager to help the advertiser keep his costs low. Well-paid radio, stage and concert actors and artists have been known to forsake highly remunerative engagements to take television parts at a fraction of their usual compensation! Top-flight radio writers and playwrights have prepared special television scripts—often for nothing more than the satisfaction—or curiosity—of seeing their works produced on television. Well-known Broadway directors have given much of their time to the new medium—often at little or no pay. Scenic designers have contributed generously of their time and talents. It seems that the only ones who charge full rates are the cab drivers who whisk the players from studio to studio.

These are conditions existing today, conditions which are certain to change within the next few months as more and

more advertisers enter the television field.

Granted that production costs are low, what tangibles can a sponsor gain by telecasting now? If immediate cash-on-the-line sales is meant, the answer is, very little. If, however, you mean the tangibles that come with laboratory experimentation, the answer is: your efforts now will pay off handsomely later on. You'll avoid the inevitable errors and blunders that come with lack of experience; the lost opportunities resulting from lack of judgment. Concretely, you'll gain the television "know-how" that should prove invaluable postwar. It will help you formulate intelligent, result-producing plans. It will bring you the satisfaction and prestige of being among the early users of television. It will bring you a not inconsiderable measure of publicity, especially in the trade papers read by your customers, as well as some national lineage.

It will bring you far more mail than you could expect from an equal number of radio listeners. Durez Plastics & Chemicals, Inc., of North Tonawanda, New York, as a result of its television series, "Designs for Tomorrow," received more than 200 letters from "videoids" in New York, New Jersey, Connecticut, Long Island and even from such remote towns as Bainbridge and Hyattsville, Maryland. The Lever Brothers show is reported also to have a large mail response. On one show, that of a tie manufacturer, more than 60 mail orders and calls were received after one telecast.

Yes, the time is ripe for advertisers to try that exciting, fascinating medium—TELEVISION!

50,000,000-Set Television Industry

I think it quite likely that during the postwar period television will be one of the first industries arising to serve as a cushion against unemployment and depression. Radio broadcasting served that function in a measure during the 1920's though at the close of the war wireless was far less developed than television will be at the close of this war. There is no reason now apparent why we should not aim at a 50,000,000-set television industry, mirroring the 50,000,000-set standard broadcast industry.

JAMES LAWRENCE FLY, *Chairman*
Federal Communications Commission

How Video Commercials Will Tax Advertisers Ingenuity

This article by Irwin A. Shane, Reprinted Through Courtesy of PRINTERS INK.

Unlike radio, where the "commercial" receives little if any attention in program planning, the "commercial" in television receives as much as the program offering itself. The selling message must be in a form that immediately focuses the listener's attention and holds it for the full duration of the announcement—a not always simple task! But unless you do, it will be difficult (lest you are philanthropically inclined) to justify the heavy program and time costs television will exact.

Consider the problem. With radio you have only one faculty to consider: the human ear. With television you have two: the faculties of seeing as well as hearing. Of the two, the eye is the more impatient one, the more discriminating, the one most easily bored. To hold the attention of the eye, you must hold the attention of the mind. Otherwise the head turns elsewhere, anywhere, but in the direction of the fluorescent screen with your sales message.

Is it a wonder then that the problem of televised "commercials" requires as much attention as the building of the program itself? To accomplish this end, the advertiser (or his agency) will need a specialized staff of writers, producers, prop men and special-effects geniuses, and other technicians for the business of translating the sales message into a video form which is as attention-compelling as the tense

melodrama or rollicking comedy which preceded it.

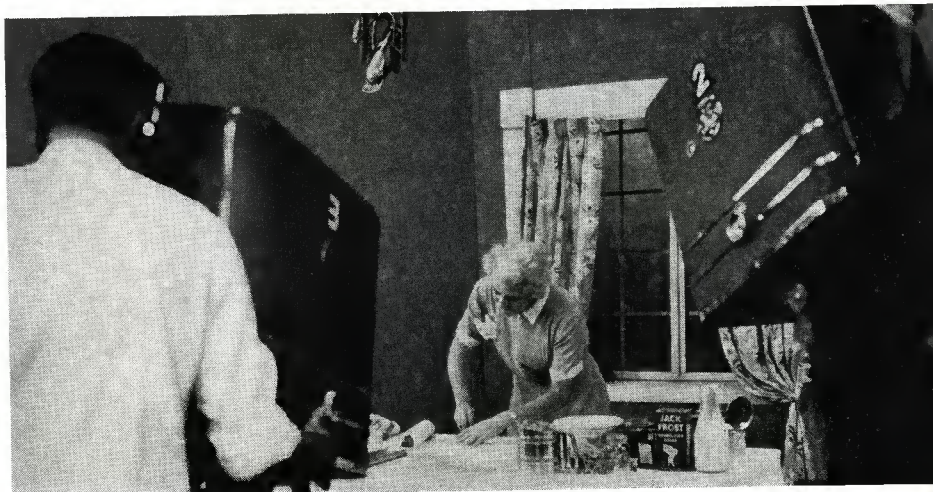
What are the various types of "commercials" that can be employed? They may be classified as: (1) The Visual Commercial; (2) The Dramatized Commercial; (3) The Film Commercial; (4) The Gadget Commercial; (5) The Remote Control Pick-Up.

Not all types of "commercials" can be employed with equal efficacy. The dramatized commercial is not suitable, for example, before or after a dramatic program, or the commercial film after a telecast of grand opera. Since there is a time and place for each type of "commercial", let's briefly review them.

1. THE VISUAL COMMERCIAL: This type of "commercial" will probably be the one most commonly employed. It requires only one or two people and some props, and is the least expensive and least troublesome to produce.

In the main, it consists of a sales message delivered by a videogenic male or female who, through repeated performances, becomes identified in the public mind with the product advertised. Let's assume the product is Maxwell House Coffee. While the announcer is describing the delights of drinking Maxwell House Coffee, the camera "lap-dissolves" to Mrs. Typical

"Visual Commercial" Demonstrating Use of Jack Frost Sugar.



TELEVISER

Housewife at the cook stove preparing the coffee, measuring off the required amount (as mentioned by the "voice"), and then dissolves back to the announcer who continues to tell how delicious Maxwell House Coffee really is, and before the last words are out of his mouth, the camera returns to Mrs. Typical Housewife serving the delicious brew to her husband, who in no uncertain terms lauds her coffee to the skies. The camera then returns to our videogenic friend, the announcer, who bids us buy a package tomorrow. His face is gradually dissolved into a package of Maxwell House Coffee, and as the parting shot, we see the meritorious coffee-can, coffee percolator, and brimming hot cups of coffee slowly revolving before our eyes. (In the commercial just described no sequence lasts more than 45 seconds; wordy, drawn-out commercials should be avoided.)

Well, so far—so good. But for the next week's show you will have to tax your ingenuity to create other visualizations, and since variety and movement are the essence of good television, you had better consult your prop and special effects departments for new devices to help project Maxwell House Coffee into the consciousness of the video audience. Such devices include turntables, "dumb-waiter" type stages, miniature settings, marionettes, smoke-producers and other contrivances.

As we have seen, the VISUAL COMMERCIAL resembles the regular radio commercial and therefore will be the most familiar form for the television writer. Now we come to a more elaborate type of commercial.

2. THE DRAMATIZED COMMERCIAL: The dramatized commercial is, in effect, a playlet. To be effective, however, the

presentation must pack dramatic or emotional content; it must be well acted and well staged. For this type of commercial you need professional actors, full scale sets, props, and possibly sound effects and costumes. (If well done, the dramatized commercial may last from 5 to 15 minutes, and may, if desired, be the sponsor's entire program.) As it makes an effective institutional type of show, it is eminently suitable for "then and now" sequences showing a product's development, and a history. Thus the Ford Motor Company might, in its dramatized commercial, show the history of the Ford Car. An insurance company could use this type of commercial to show what happens to an insured family when tragedy strikes, or show how accidents happen and can be prevented.

Pan-American Airways could utilize this form to tell of the romance of aviation; Goodrich to show how it licked the problem of synthetic rubber; DuPont to relate its discoveries;

General Electric, its inventions and developments; Bell Telephone, the drama of the telephone, etc.

Because of its structure and content, the "dramatized commercials" may run from five to fifteen minutes and even to thirty minutes, if desired. It may well be the sponsor's entire programme offering if the dramatization is well conceived and produced.

"The Dramatized Commercial" should be an institutional, prestige-building, good will type of offering, with the selling message limited to a short announcement at the end of the program.

3. THE FILM COMMERCIAL: This type has the obvious advantage of repeated use

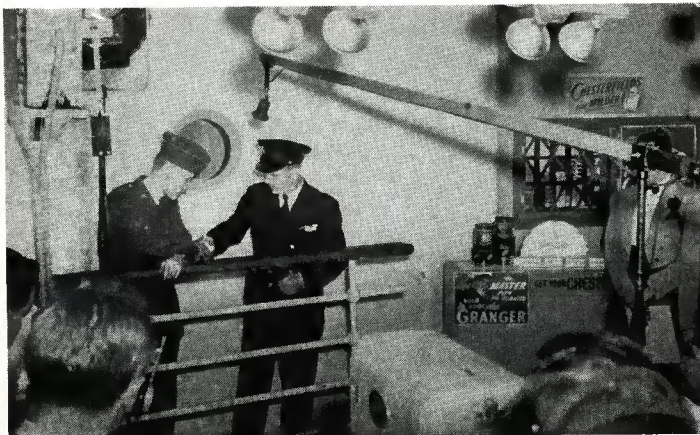
(Continued on page 46)



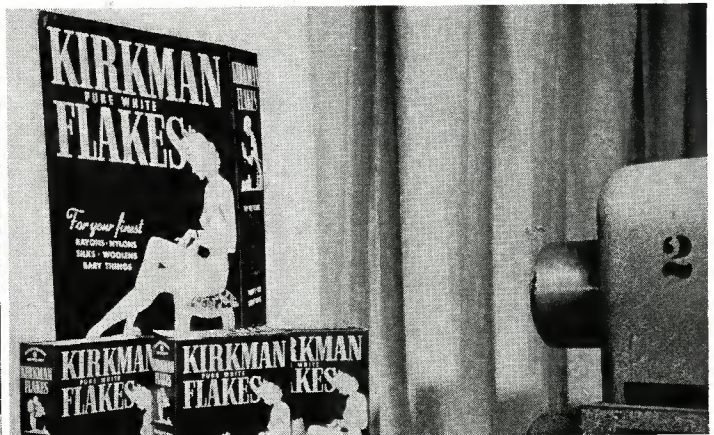
A Rival Dog Food Commercial as Seen Over Station WABD.



A "Tintex" Visual Commercial Shows Color Chart.



A Dramatized "Commercial" for Chesterfield Cigarettes.



A "Gadget" Commercial for Kirkman Soap, via DuMont.



TELEVISION

the "Baby" that will start
with the step of a Giant!

America's "Next Great Industry" awaits only
the green light of Victory to open up undreamed-of horizons
in Education...Entertainment...Employment

IT took fifteen to thirty years for the automobile, the airplane and the movies to become really tremendous factors in American life.

But television will start with the step of a giant, once Victory has been won and the manufacturers have had an opportunity to tool up for volume production.

Few realize the enormous technical strides television had already made, when the war put a temporary halt to its commercial expansion.

Dr. V. K. Zworykin's famous inventions, the Iconoscope and Kinescope (the television camera "eye" and picture tube for the home), go back to 1923 and 1929 respectively. Signaling arrival of the long-awaited all-electronic system of television, their announcement stimulated countless other scientists in laboratories all over the world to further intensive development and research. By the outbreak of World War II television, though

still a baby in terms of production of home receivers, had already taken giant strides technically.

During the war, with the tremendous speed-up in all American electronic development, man's knowledge of how to solve the production problems associated with intricate electronic devices has naturally taken another great stride ahead.

When peace returns, and with it the opportunity for television to move forward on a major scale, all this pentup knowledge from many sources will converge, opening the way for almost undreamed-of expansion. Then American manufacturers will produce sets within the means of millions, and television will undoubtedly forge ahead as fast as sets and stations can be built.

In a typical example of American enterprise, many of the nation's foremost manufacturers, listed here, have already signified their intention to build fine home receivers.



IN THE TELEVISION AGE, the teachers of the little red schoolhouse will offer their pupils many scholastic advantages of the big city. And in the home an endless variety of entertaining instruction: courses in home-making, hobbies like gardening, photography, wood-working, golf.



WHILE REMAINING AT HOME, the owner of a television set will "tour the world" via television. Eventually, almost the entire American population should share in the variety of entertainment now concentrated only in large cities...drama, musical shows, opera, ballet.



TELEVISION will aid postwar prosperity. Television will give jobs to returning soldiers, and an even greater effect will be felt through advertising goods and services. Millions will be kept busy supplying products that television can demonstrate in millions of homes at one time.

WATCH FOR THESE NAMES AFTER THE WAR

The manufacturers below may well be described as a *Blue Book* of the radio and electronics industries. Their spirit of invention, research and enterprise built the radio industry into the giant it is today.

Who can contemplate their achievements and fail to realize that in them America has its greatest resources for the building of the "next great industry"—television. Watch for their names after the war!

ADMIRAL * AIR KING—PATHE * ANDREA * ANSLEY * AUTOMATIC
 AVIOLA * BELMONT * CLARION * CROSLY * DE WALD * DuMONT
 EMERSON * ESPEY * FADA * FARNSWORTH * FREED-EISEMANN
 GAROD * GENERAL ELECTRIC * GILFILLAN * HALLICRAFTERS * HAMILTON
 HAMMARLUND * HOFFMAN * DETROLA * MAGNAVOX * MAJESTIC
 MIDWEST * MOTOROLA * NATIONAL * NOBLITT-SPARKS * PACKARD-BELL
 PHILCO * PHILHARMONIC * PILOT * RCA * REGAL * SCOTT * SENTINEL
 SILVERTONE * SONORA * STEWART-WARNER * STROMBERG-CARLSON
 TEMPLE * TRAV-LER * WELLS-GARDNER * WESTINGHOUSE

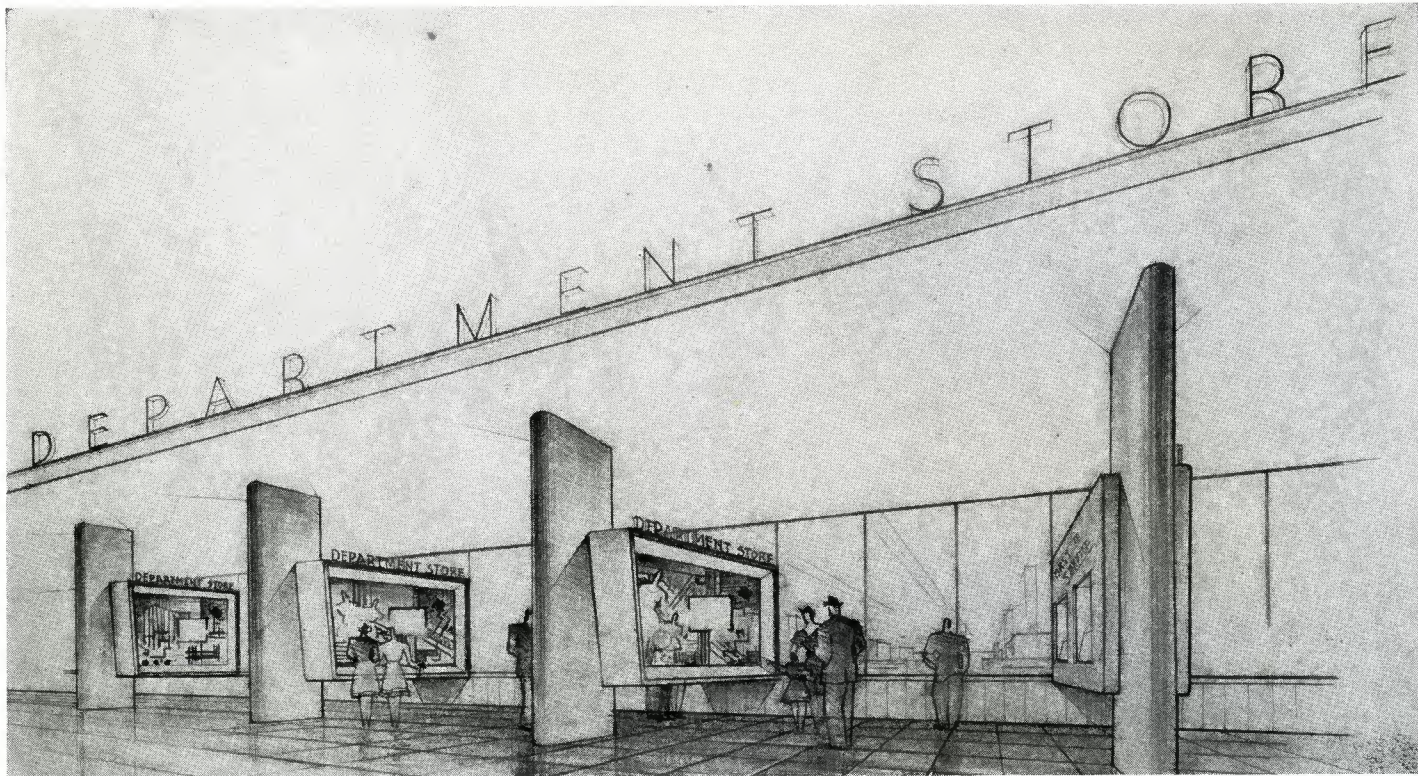


● RCA PUBLISHES A "WHO'S WHO" IN TELEVISION

FOR many months RCA has been keeping the public informed about television. This latest advertisement* . . . conceived by RCA and signed in a spirit of

cooperation by 46 radio and electronics manufacturers . . . is the farthest advance yet made in information, even naming manufacturers who will supply sets.

*Carried by 13 newspapers in the following cities: New York, Philadelphia, Baltimore, Washington, Chicago and Los Angeles.



Design for Postwar Department-Store Television Windows, Executed by Donald Desky from Plans by Television Workshop. (See Page 43 for Details.)

TELEVISION FOR RETAILERS

By IRWIN A. SHANE

RETAILERS have long shown an avid interest in television. Evidence of this interest is widespread. You can hardly pick up a copy of *Women's Wear, Retailing* or *Display World* and not find news-items and articles about television.

What are the retailers doing about television? The answer is not hard to find. Bloomingdale's in New York and Abraham & Straus in Brooklyn have organized the Metropolitan Television System. Wm. Filene's Co. in Boston has set up a television corporation. Maison Blanche, in New Orleans, has applied for a television license. Seventy-five members of the Associated Merchandising Corporation met at General Electric Company station, WRGB, Schenectady, on September 29th to study television. In Philadelphia, Boston, Atlanta, Washington, D. C., Chicago and other principal cities television plans are moving along rapidly.

Department store television dates back to 1912, when tests were made in Selfridge Department Store in London.

In this country, Bloomingdale's was probably the first store to present a fashion show via television. This then breath-taking experiment took place in the Spring of 1939 when a millinery fashion show was transmitted from an improvised studio on the store's 6th floor to the amazement of customers in the fashion departments on the third floor.

The first window television also took place at Bloomingdale's in 1939 when the store televised events of the New York World's Fair to thousands of persons who crowded before the windows.

In 1939 and 1940, stores in over 100 cities got their first glimpse of television when RCA and Farnsworth toured special jeep units to department stores from California to Maine.

How important an advertising medium will television be? The answer, *very important*.

NBC and RCA spent a total of \$12,000,000 experimenting with television from 1937 to Pearl Harbor. During the

time NBC Television was on the air, it is reported that psychologists tested audience reactions and found that memory retention was 10 times greater with television than any other medium. . . . The logical conclusion, therefore, is that television should prove 10 times more effective than radio or newspaper advertising.

The reason for the high potency of television is not hard to find. 80% of our knowledge comes through our eyes. Our earliest recollections are things we saw, not things we heard, touched, smelled or tasted.

The fellow from Missouri says: "Show me." And thousands, nay millions of women, daily come into retail stores and say the very same thing. They want to be shown before they buy.

Seeing is believing. The closer you approach reality—give life, movement, spontaneity to a thing, the more arresting does the object become. Stores who have had animated displays in their windows, or in their toy departments at Xmas, 'know this from first hand experience.

Suppose that when you picked up a copy of your favorite newspaper and after reading the war news, your eye focused on an advertisement of Arrow Shirts. Suddenly the handsome illustration came to life, spoke to you and pointed out the advantage of Arrow, you'd say the paper was a very effective medium. Or suppose you picked up a copy of *Harper's Bazaar* and suddenly the very attractive model in the ad for Formfit Brassieres came to life. I'm sure you'd experience quite a lift.

Remembering that television is rated so highly effective an advertising medium, just consider the vast publicity potential right on your store's premises—right at the point of purchase!

Through the use of retail television, you can tap the rich traffic and direct it to departments where television specials are being offered. You can make your store traffic mean more than ever before.

What types of television will be available to department stores? There will be three. The first, and perhaps the most common, will be the type whereby a store engages time on a commercial television station, just as a store now engages time on local radio stations.

The second type is where a store owns its television station—and many stores are considering that very thing. How costly would it be? The essential equipment for a commercial station, that is transmitter, antenna, two cameras, etc. comes to about \$250,000. With a studio, and some accessories, it might come to \$350,000. For that a store would be able to telecast, not only to receivers located throughout the store, but also to its customers and prospective customers in the comfort of their homes. In addition, the store would derive a considerable revenue from the sale of air time to others.

There are ample precedents in radio for store-owned stations. Bamberger's, for example, through its Station WOR, made its influence felt through the entire state of New Jersey. Its station is now the key station of the Mutual Broadcasting System. Numerous stores have their own radio stations and will own television stations, Bloomingdale's and Abraham & Straus among them. Will there be room for all? In all probability, yes. A total of eighteen television channels will eventually be available in most cities.

The third—and most widely discussed form of retail television—is known as intra-store or "jeep" television. "Jeep" television is a system which requires no license, inasmuch as the television is limited to the confines of the store. It's a system which utilizes telephone lines, or coaxial cable as it is known, linking up the output of the cameras with television screens located throughout the store and display windows.

By a system of "jeep" television, it becomes possible for you to telecast a fashion show taking place in the store's studio to receivers located in all your windows, restrooms, lounges, escalator landings, dining rooms, soda fountains, service counters, and merchandise departments throughout the store. Some stores plan to have receivers located in their auditoriums, and in special television viewing rooms located on all floors. A few stores are planning to lease or build theaters in which the television programs will be screened, with admission free to the public.

By a system of "jeep" television, a store can feature fashions, housewares, kitchenware . . . and scores of other "hard" and "soft" lines. It can hold 15-minute cooking demonstrations, sewing classes, interior decoration classes, and many of how-to-make demonstrations . . . not for a small, limited audience as heretofore, but for all within the range of receivers inside the store and moving past the windows.

In addition to the types of programs already mentioned, produced by the store's own staff, the store can feature local talent—local singers, dancers and instrumentalists—the local high school orchestra, the Masonic Band, as well as the store's own orchestra—in programs for the entertainment of its customers. The store can also feature newscasts at regular hours . . . as well as film featurettes. Features of this type would help bring traffic to the store, build good will with its customers and sell merchandise in large quantities.

It can show the workings of the store—take the customer back-stage into the receiving and shipping rooms . . . into the display and advertising departments . . . into the office of the fashion co-ordinator . . . into dozens of other interesting activities in the store.

It can feature talks by the store's president and other executives. It can feature well-known local, national and international personalities who are in town.

But most important of all, it will sell merchandise! The union of sight and sound, video and audeo, makes for a powerful medium . . . a medium which will move merchandise from a store's shelves to the homes of its customers. It will, without doubt, be the most powerful tool in a store's selling kit, especially if intra-store, as well as regular broadcast television, is utilized.

(Continued on page 46)

Buying by Television. From an Old French Print.





Fashion Shows Are Expected to Play Important Part in Postwar Retail Television Programming, Especially in Mail Order Selling.

(Photo, courtesy WRGB.)

MAIL ORDERS VIA TELEVISION

By A. W. BERNSOHN

YOU have the buying staff. You have the capital. After the war you'll have plenty of personnel. And you'll have television then, too; which means that you, Mr. Department Store Executive, may soon be riding herd on a more substantial mail order business than you thought possible.

Pipe dreams? Hardly. Let's examine the obstacles that deterred you from running a big mail order operation years back. There was the formidable task of buying far in advance, buying huge, unpredictable quantities well ahead of season, of having these goods photographed, given copy blocks and shaped into an impressively fat and costly catalogue so that the mailing wouldn't be too costly per unit of potential sale. Too, a tough job lay ahead in the assembly of a sales-containing mailing list. All this meant new personnel problems, a long-time gamble of many thousands and a sharp deviation from the line of activity that happened to be a winning formula for you. There were big boys in the field, strong merchandisers who had made the catalogue their medium of expression just as you had made the dynamic window and interior display, the powerful display ad and the sincerely helpful sales approach yours. So you by-passed the mail order business then—and rightly.

But now things are different. Today television is an onrushing reality. Your buying power, personnel and imagination all bid for a bold, daring approach to the new medium. Here is your opportunity to service your community as it has never been serviced before.

Your original mail order stock is whatever goods are on your shelves and in your stockroom whenever television settles down in your community. There won't be a lot of customers right at first, so mistakes won't be costly. Show the goods. Demonstrate it over television. Let the camera record the items, serial numbers, and demonstrate how easy it is to order. You know the territory serviced by the transmitter near your store. It's loaded with your customers and those of your competitors. You know the styles and quality those people demand, the prices they'll pay. Your selection of mail-order merchandise can be far more expertly tailored to these customers' demands than can the selection of some national catalogue-burdened distributor.

Furthermore, you'll not have to anticipate the season's successes as do national operators. Show only what you have available at a time you have it on hand. Television bobs the time element in mail order work so that it's nearly too short to be speculative. Price changes, short-orders, style modifications and size limitations

needn't catch you unprepared; you can receive the stock today and be advertising it tomorrow while you're still entering the invoices. Turnover by the television mail order route hasn't yet been predetermined, but it's a safe gamble that you'll be able to double your present turnover on high style items and increase that on staples about 30 to 50 percent as soon as television receiver distribution has had a chance to get its licks in.

It will be necessary to wait this long because television's earliest stage in the department store (the receiver sales department and the self-contained units which pipe images picked up by an on-premise camera to receivers in windows, near waiting rooms and in interior displays) will not lend itself to sizable mail order operation. It's simply effective; crowd-drawing display work.

The simplicity and effectiveness of stimulating mail order sales by use of time on a local television station carries with it severe obligations. Customers who might balk at buying from a strange corporation have a sense of familiarity with your store. The intimacy of television will heighten that familiarity if care is expended in preparing for video merchandising. They'll buy from you because they feel they know and know they can trust you. Therefore fast, efficient order-picking and shipping departments are absolute musts if this in-

novation in mail order operations is to succeed. Trained, alert operators, including those who can speak foreign languages in some metropolitan locations, must be schooled in taking phone orders without mistakes. Special services, such as air-mailing, gift-wrapping, card enclosures and other requests you receive in the store, should receive careful attention. It will probably prove worth while to zone orders so that some mail order requests may be handled by your regular delivery service.

The merchandising of the new service also challenges your store's creative imaginations. In each order should be enclosed distinctive order blanks with postal information, instructions for payment, convenient blanks for special services requested and appealing copy about the ease and desirability of shopping by television mail order. Try to so design this phase of promotion that once a television mail order customer has been created, he will continue to buy that way. Stress the time-saving element, the utter dependability of the medium, the rarity with which substitutions are necessary, the traveling and money saved through these purchases, the big-city styles they offer small-town residents. Do this and you can't help being handsomely rewarded in sales volume without necessarily increasing the volume of traffic in the store.

In New York, one women's ready-to-wear outlet, Hecht's, has developed a merchandising approach which might well prove a forerunner to that used by departments operating under franchises in many department stores once television sets in. Hecht's selects various popular, moderate-priced styles, one at a time, for promotion in the large-circulation *Daily News*. Display ads with excellent illustrations of the dress being featured and listing a dramatic description of the style, fabric, colors and sizes all are centered around order coupons. Without expanding, save for its increased stock room and shipping department, this retail organization has done a volume selling job which is the envy of its less enterprising competitors.

Let's translate Hecht's sales approach to television. You're sending out a feeler over the airwaves for the dress department. Gray wool flannel dresses seem to be selling nicely and you're comfortably stocked in a good run of styles and sizes on these. Prepare a selection of dresses.

Choose a good-looking outdoor type model for the open-collared shirtwaist style, a well-coiffed blonde for the low-necked afternoon dress, and other suitable girls for the other styles selected. Have slides or cards made up showing the labels on the dresses, the prices, serial or order numbers and order blanks filled in to show size, style, order number and other details for ordering. School each model in showing the advantages of her outfit as it is indicated in the script. The store name is pointed up, possibly with a movie of its exterior showing the large outside sign, and its address is driven into the customer's memory with a closeup of the store number on the door and the street sign out in front.

Now we switch to the live action in the studio and introductory theme music is supplanted by the announcing staff taking over with a short plug about your catalogue of the airwaves, possibly supported with a real catalogue cover. As you turn the first page the scene fades from the catalogue to a well-composed grouping of all the models. The announcer tells how gray flannel is the rage this season. As the camera moves closer to the models in succession, the spiel carries on with the virtues of the fabric in being wearable with all colors, an excellent background for all sorts of accessories, flattering to all ages and sizes, easy to keep clean and smart looking and as basic to milady's wardrobe this season as was black last year.

The catalogue page turns again and we see one style alone. Here's where the individual selling sets in. The label, either the store's or that of a nationally recognized brand, is shown and its significance highlighted. The designer is mentioned in an awed tone. The model shows how deep the hem is, to make the dress suitable for tall girls. Style features of shoulders, neckline, trimming, drapery and skirt treatment are pointed up while the model poses appropriately and walks or turns. Price is emphasized or slurred over, depending on its contribution to the sales punch. Order number is both shown and read off by the announcer. And we're on to the next page.

This continues until all styles are shown. Then the instructions for filling in and mailing the order blank are given and the customer is told and shown exactly

what information she is to send in, in lieu of an order blank. Thus, may sales be born.

This approach is a simple, economical one.

Similarly foods and furniture, linens and luggage, hardware, drugs, accessories and all the myriad stock in the store can stand their turns during the course of your program's run while television comes into your community bringing with it the substantial mail order business which will be your reward, Mr. Department Store Executive, for courage and enterprise.

New Uses For Trade-Marks

TRADe-MARKS will take on new uses after the war when television goes "commercial."

Not only will consumers see them in advertisements, and on billboards, but they will see many familiar trade-marks come to life—on television screens!

Aunt Jemima will literally step right out of a package of pancake flour and will prepare the delicious flap-jacks before your watering mouth.

On every Philip Morris program, you'll not only hear Johnny's strident tones, but you will see Johnny as he calls for Philip Morris.

The possibilities are endless.

The Gold-Dust twins will sweep the studio clean and then disappear in a lap-dissolve.

Arrow collar and shirt ads will be brought to life with a handsome man stepping out of the printed page.

Psyche, the White Rock damsel, will, no doubt, become the pin-up girl of television generations to come.

Pepsi, the Pepsi-Cola cop, whose personality thus far has been limited to line cuts, will drop his pearls of wisdom, in the flesh, on television.

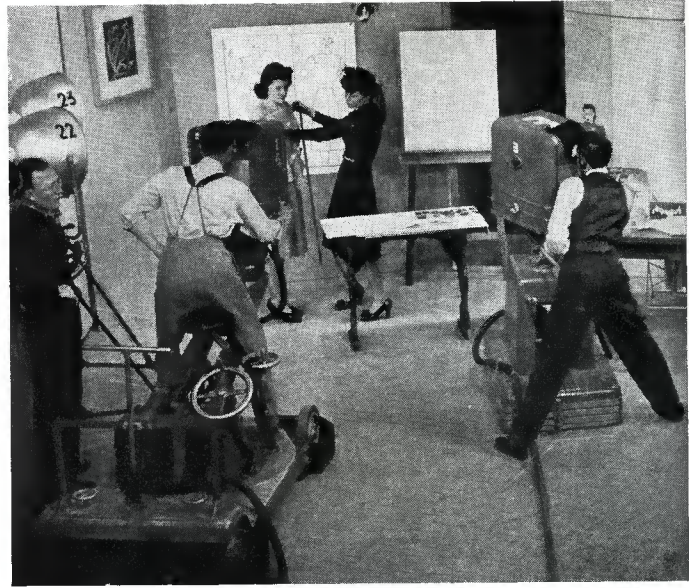
The Quaker Oats Man will be lending his wise-old face to every Quaker Oats commercial.

And so will continue the procession of dusted off trademarks, with new uses, new twists, new electronic personalities.

In any case, jobs for actors should be plentiful—and for artists, as they conceive brand-new trademarks, specially dreamed up for the television trade.



Miss Mary Weber, Lighting Expert, Is Shown Giving a Demonstration in Proper Lighting Over Station WRGB, Schenectady.



Miss Edith Dunn, McCalls Expert, Shows How to Sew and Save at Home, for Promotion of a Store's Fabric and Pattern Departments.

SIGHT + SOUND = SALES

By VYVYAN DONNER

NEVER in the history of modern times has the department store been offered a more powerful means of advertising than television.

Traffic-stopping windows, clever show-cases, attractive newspaper sketches, smart photographs, good copy, and intriguing radio announcements are each and everyone employed by modern department stores to bring in customers. And each and everyone of these means can be combined in *one* telecast! Therefore, think what television advertising can do for the stores!

Stores have long profited by newspaper ads, where the prospective customer only *sees* the merchandise; stores have profited by radio broadcasts, where the prospective customer only *hears* the descriptions of the merchandise; imagine the profits for a store when its prospective customers can both *see* and *hear* the ads!

Television will bring your best window displays right into every home. It will bring your most effective show-cases to every door. It will make your ads come to life, your photographs and sketches walk and talk. Your once-upon-a-time radio announcements will become illustrated talks, with merchandise plainly visible.

The fashion possibilities are obvious, but think what could be done to dramatize

the other departments! Furniture, groceries, piece goods, hardware, notions. You can display the new post-war plastic furniture; show the housewife using some new magic gadget in the kitchen; dad employing new inventions; demonstrate the latest in refrigerators, electrical appliances, air-conditioners, labor-saving devices, pianos, toys, and any number of the things that will flood the markets after the war. Or actually show the public what is here now.

You can bring a veritable exposition into every home with a television set. You can create new customers, for all viewers will be potential buyers.

Television advertising will call for new techniques in writing and presentation, a combination of stage, screen, radio, window-dressing and merchandising skill. A big order, but it can be accomplished through trial—and not too much error.

Error comes in when you don't face what has to be done, and there is much to be done in television. You might as well face it, accustom yourself to it and handle it with knowledge and showmanship. Showmanship is of the utmost importance in television, and showmanship is based on things well-timed, well-produced, well-planned, entertainingly produced—and—human.

First of all, the store must build up a regular television staff, for good shows need experienced people back of them. There should be a skeleton staff consisting of a script writer, (possibly filched from the advertising copy department); two announcers—a man and a woman; an art director for the settings; a make-up expert, and a director for the rehearsing, the staging, the whole co-ordination of sight and sound.

The settings are important, and should not be hit-or-miss. They should always be simple and in good taste, and suitable to the subject matter. Your art director might be drafted from the window-dressing studios.

The television staff will indeed be a new department for the department store, but a necessary one, for with a well-trained and experienced television stock company some very effective advertising skits can be televised. This television unit can be developed into a highly efficient selling organization, and their listeners will develop into a great audience of purchasers who will look forward to seeing and hearing what they have to sell.

Besides the announcers, there should be one or two experienced mannikins. Not only the smooth, handsome young women who love to model, but the little teen-agers

and the buxom matron as well. On the masculine side, father and son should have representation from time to time—for believe me, they want to know what's new too, for work, school, and sports!

For a really big store, there might be the Department Store Family—composed of the ideal American Mother, Dad, Sister and Brother . . . just like some of the fictitious families of radio. Why not? The possibilities are staggering! You could dramatize their lives from dawn to dark, along with all their friends. Your department store customers would live along with your Store Family, sharing their vicissitudes, their growing-pains, their adventures, their fun, and—their purchases! A vast fan audience could be built up into cash customers through this very personal contact.

This is looking a bit into the future. For the present, I would recommend only good announcers, agreeable demonstrators, smart mannikins, and visiting stars.

The telecasting of "personal" appearances, and lectures, by guest dress-designers, milliners, stylists and authors, will be a tremendous drawing card for the stores. Most of these people speak very well and entertainingly, and should be able to help "sell" the departments that handle their creations.

Be sure your people get a good break with proper make-up. Have a television make-up expert to help get them ready. Don't let the newcomers, the guest-artists, or the first-timers make themselves up. They haven't the faintest idea of how to do it. Lend them a hand and take the time to make them look right.

The looks of people and things are of vital importance in every form of advertising. It is paramount in television. Make your performers look their best. Present your wares with taste and distinction. Let your presentations match the high quality you strive for, and achieve, in your store displays and newspaper advertising.

Marshall Fields Tests Television

FOLLOWING its tradition of being America's first department store to utilize new sales promotion media and opportunities, Marshall Field & Company this spring gave Chicago its first commercially sponsored full-length television show.

Televised over WBKB, the show featured thirty minutes of entertainment as the "Supper Club of the Air." Don McNeill, Nancy Martin, and other stars of NBC's Breakfast Club headlined the show and carried dialogue leading into discussion of women's apparel and accessories from the store's famous "28 Shop." In this smart supper club setting, mannequins acted the part of guests and modeled dresses and millinery of famous designers which the "28 Shop" sells.

"We regard television as a major marketing tool for retail stores as soon as an adequate signal can be transmitted to a sizable number of sets in our marketing area," states L. B. Sizer, sales promotion manager.

As a means of testing the ability of television to project a selling theme suitable to department store merchandising over a period of considerable length, as well as to gain experience in handling the new medium, Marshall Field & Company selected the evening of May 5 as the date of the show, and in cooperation with Radio Corporation of America, built a program combining entertainment with fashion showings. Handling details of arrangements was Ruthrauff & Ryan, Inc.

Station WBKB, atop the Balaban & Katz Theater building in Chicago's Loop, and operated under Navy control, is said to have a radius of 30 to 60 miles. Television sets in this area are estimated to be about 250. In spite of these limitations, plus the accent upon gaining experience instead of selling merchandise, Marshall Field & Company's "28 Shop" did receive inquiries as a result of the television show.

Packed into the station's audition studio were company executives, advertising agency people, and others interested in the problem of applying television to retail merchandising. An office was pressed into service as an audition room to take care of overflow. General comment from all who heard and saw the program was of satisfaction with the technical ability of the

medium to tell a sales story.

With only a single rehearsal in the afternoon preceding the show, the cast did a perfect job of demonstrating the naturalness with which sales information can be combined with entertainment. Instead of following a detailed script, Don McNeill took the cast of more than a dozen through their routine much in the fashion with which he ad libs as emcee of the Breakfast Club. Songs, gags, and a magician's set of parlor tricks performed by the well-known sleight-of-hand artist Bert Atherton, contributed to the supper club atmosphere. Mutual admiration of each other's attire by the mannequins provided ample opportunity to plug fashion details and answer both serious and comic lines on the pattern of "Where did you get that hat?"

Problems of shading in television reproduction made it advisable to keep the women's dresses and hats basically dark, and avoid both bright colors and intricate details of costume. This simplicity, as well as the monotony of color, was relieved greatly by the use of print dresses. The formula developed by this experience, however, was basically dark prints in a plain style.

Chief beneficial experience of the television show, according to Sizer, grew out of the technique of injecting commercials into the structure of the supper club.

"Television commercials require greater skill than radio commercials and create a greater problem," he states, "but we have found that with our type of merchandise it is possible to make commercials quite painless."

Postwar retail merchandising may involve considerable television sales promotion, this executive indicates, provided some of the "if's" are ironed out. Demonstration of merchandise in action is a fundamental of department store selling, which television is expected to be able to project on a grand scale.

"When we find a medium which makes it possible to demonstrate visually for millions instead of thousands," Sizer points out, "we will have hit the jackpot. If television proves to be all that it promises, it will multiply our ability to demonstrate merchandise many, many times. Hence, we are bound to use it and will certainly do so at the earliest practicable moment."

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What Retailers Can Do Now About Postwar Television

By DAVE ARONS

Publicity Director, Gimbel Bros., Philadelphia

THE dream of merchandising by television is rapidly becoming a dread reality. I use this melodramatic phrase advisedly because unless the habitual attitudes of department stores have changed, we are likely to witness another example of bungling, lack of imagination, and general neglect of the sort that permitted radio to slip from the hands of the great stores of America to the shyster credit store, fur outlet and other second-grade retail establishment—all under the name of "caution".

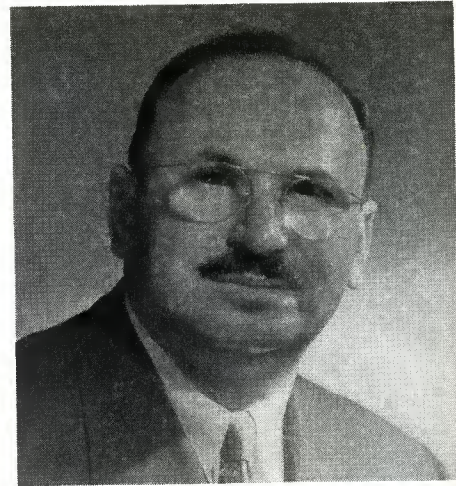
Too many retailers forget that they no longer live in the 1915's and 1920's, when the only dramatic means of communication was the newspaper. Today, no matter how skillfully we use the newspaper, it has been amplified a thousand-fold by radio and television. For, even without the actual experience of working with television, its publicity and habit moulding possibilities are fairly obvious. One need not be satisfied merely with thinking of television in terms of fashion shows. Take the problem of maintaining and selling standards of quality. In no other field of publicity has the newspaper, the radio, proved so inadequate as in the field of quality selling. The phrases and the words that have been used for the last twenty years have become threadbare clichés. With very little variation, the same commercial, the same advertisement, the same illustration can be used for a \$100 suit of clothing as can be used for one at \$35. Because, only through the sense of sight—or possibly, in addition, the sense of touch—is it possible to bring home the hidden ingredients that make for quality. Selling quality by television makes good the old bromide that "seeing is believing".

In still another field, upon which the department store depends for survival as against the newer price competitors, can

television be used effectively: in the field of Service—in the care and handling of merchandise; the training of sales organizations; the painstaking store planning to assure customer comfort and convenience.

And, as for display, television is a veritable God-send to the store with imagination and courage. For the first time in the history of distribution, the vehicle which can provide the two indispensable ingredients for effective display—motion and sound—is there to be used.

It is fortunate that the conditions under which television will first be merchandised will be far more propitious for department stores than was radio. Television broadcasting will be in much stronger hands at the start than radio was, and it is doubtful whether the televisers will want to, or need to, be indiscriminate in their sale of television time for the sake of survival income. Television probably will not be cheap, which means that the marginal retailer will find it far too expensive. Television broadcasting techniques themselves require far greater skill, time, effort and money to maintain even the barest minimum of audience attention. Even its technical limitations are an advantage. The boundary of television within the 35-mile limit unless relayed makes it possible for stores to eliminate the "waste circulation" which has been one of the arguments against a more thorough use of radio. Finally, the television time available will be far less than radio time, because it is obvious that the seeing habits of television will be radically different from the listening habits of radio. The televisers themselves need a word of caution. A large part of the responsibility for the present state of radio advertising lies at the doorstep of sloppy, time selling methods. If televisers have learned by the mistakes of radio, they should be of far greater aid to the retail televiewer than the radio stations ever were.



DAVE ARONS

What can the leaders of a progressive store do about television now? Certainly, there is no need of going from the extreme of utter neglect to that of pellmell extravagance and enthusiasm, winding up with all sorts of indigestible commitments. Here are some of the things which can be done:

1. The store head, or publicity director, of a good store will know personally the people who are to be the prime movers in television. While he may not have the technical details of television at his finger tips, he should know the broad technical ideas behind television so far, and what is being done now, and he should see personally as many as possible of the present television techniques, even though they are in the experimental stage.
2. He will know the plans of the most important televisers in his area and will make commitments as far as today's conditions permit for television time, and types of television programs.
3. Undoubtedly, a great many manufacturers of national brands will sooner or later provide interesting films of the stories behind their products for television use. He should be alert to take advantage of their plans.
4. He will follow closely the development of intra-store television equipment for both display and sales training purposes. It is my belief that in this particular field, department stores will make their first big investment.
5. He will join with his fellow retailers of equal rank and the televisers in his area and organize a strict self-policing code to see to it that television is not cluttered with the types of retailing commercials that now clutter radio.

3. Most important of all, let him not be a victim to the delusion that successful television is one man's job. He must begin now to educate his buyers, his merchandise men, as he educates himself, because they are the pressure points that color and influence the promotional and sales policies of great stores.

Undoubtedly, television will first enter the picture as a stunt with a great novelty interest for a longer or shorter period of time, depending on how long it will take

for mass distribution of television receivers. That period will be over soon after; and, then, its real rewards will come only to those televisers who have worked, studied, experimented.

Will store management use television? Will they have the courage to spend the money for it; will they live with it; learn its uses; develop the young talent needed for television? Judging by its past record in the use of radio, the prospect is not too

encouraging. If television will be handled by aggressive people with twenty-first century thinking, then department stores can re-build the leadership which was theirs a generation ago in the field of retailing and again become a colorful and useful contribution to community life. Television is not only an opportunity, but a warning to the present-day management that upon its courage and imagination in the use of this new medium depends its leadership and, perhaps, its survival.

A Publicity Director Asks:

Can Television Pay Its Way?

By E. BEN POSEN

Hochschild-Kohn Co., Baltimore, Md.

LET'S say the war is now over and the miracle of Television is ready, able and willing to serve all comers, with national distribution or local, manufacturer, wholesale distributor, retailer. Will stores adopt this worker of wonders quickly, intelligently, effectively? I doubt it!

And it's not because stores are "backward" in adopting such new promotional weapons, as has been so often stated. I certainly don't think that every store owner or manager in this country will see the great benefits of television at once or be willing to try its effectiveness even if he does have "vision". Why? Because Television looks as though it will be mighty expensive to support if a store really wants to establish and maintain a high level of excellence in its video presentations.

I have just seen a motion picture on television—and that's what raises the doubts in my mind. I saw and heard what breath-taking possibilities sight-and-sound presentation has. And I also was distressed at the apparent difficulty of doing a really good program. I saw complicated control-boards, with several cameras in use. There were Hollywoodian "dollies" that men pushed to move the cameras to the right angles and spots for the best visual effects. And then there were make-up men, and engineers and several sets of "two other guys" busily and dizzily running in and out, crawling here and there to place lights properly as the actors and the cameras moved hither and yon. And how about the writers, and the scenarists, and the directors and the sets and rehearsals (no read-

ing of scripts can be allowed in front of the television camera, I presume), and the myriad details that must be attended to for a finished performance? From my limited knowledge of retail stores, I simply can't see the average store paying for all that talent and equipment for a broadcast of any kind, even video!

And I'm afraid the man who said "No" in almost any store would be right. Such production costs would be proper and in line for a chain broadcast, where the cost of the actual presentation could be spread over hundreds of thousands or perhaps millions of listeners, just as chain broadcasts are handled today without "sight." The cost of a first-class broadcast in most local areas would be prohibitive. And with the promise that Television will be as good as the movies or better, not only in its mechanical aspects but in its technique of presentation, how can a store put on a "ham" show that not only sounds terrible and corny but looks perhaps worse? And where will we all get the combination, in our own little bailiwicks, of dulcet tone and ship-launching face in our performers?

Then there's the other "out"—the "canned" television show, the films that will be available. Well, we've all seen commercial films—and fillers used in our local neighborhood movie houses. Yes, there are good ones in both classes, but you'll admit, not many of them. Are these fifth or sixth rate shows what we retailers will have to settle down to?

Remember, a woman can listen to the

radio while she is cooking, or diapering the baby, or knitting or, or, or . . . but she can't look at the video and do much else, especially if she has to *listen* at the same time. So your show has to be good enough to make her stop what she's doing to see and hear your message. How can we retailers concoct such a stopper at a commercially sound cost?

There seems little doubt that enough brains and energy and creative genius will be brought to bear to solve these very important problems connected with Television for retailers. And an army of retail store top executives and sales promoters are eager for their successful solution. But it looks, from where Mr. Average Retailer sits, as though it will be some time before we can turn to this form of sales presentation, without misgivings and with a reasonable budget, for important sales results. Will someone please give us the answers?

\$200 Receivers Foreseen!

"The conclusion seems inescapable that when, in the postwar period, the radio industry produces a good television receiver in the \$200 price range, a very high percentage of the homes in the United States will be ready to buy receivers as soon as service is available to them. Such a receiver, I believe, is possible."

THOMAS F. JOYCE, *Manager of the RCA Victor Division's Radio, Phonograph and Television Dept.*

will not within the matter of a few weeks' time. And, since the industry is in its infancy, the field is open for experimentation. This is a great boon to the department store artist who finds himself hampered by tradition, until he feels that no one wants anything that's really new.

Television has a commercial advantage over other fields in a rather strange psychological way. It is quite possible to turn off a radio commercial with no feeling of discomfort. It is quite a different matter to turn off a television set while being stared at by a pleasant faced, smiling announcer. It somehow seems so rude that it is next to impossible. One picture is worth ten thousand words. Displaying your merchandise in visual commercials, right in the home of the consumer means that they can be short, vivid and attention-getting.

But far more important than home commercials for the department store world, is the possibility of store use of television. Revolutionary methods of window display are right with us at the moment, if we care to use them. The idea of windows, bare of ungainly mannequins, showing only accessories, while a television screen at the rear of the window shows a continuous procession of *living* mannequins, displaying clothes in motion, as they will look in use, is breathtaking to the displayman who is alert to the needs of the consumer. Most women, most people, need to be shown. They cannot visualize what they will look like in their clothes. Here is the chance to show them what the clothes they will buy will do for them at work and at play. It is true that shoddy merchandise can be made to appear glamorous and well-cut when displayed on a sophisticated doll, pinned beyond all recognition. But nowadays, legitimate department stores are stressing value for cost price. Here is the chance, with television, to show durability and usefulness.

We may expect, from the old-line displayman, squeals of protest and howls of scorn. He is so used to selling fixtures: gilded autumn leaves, cherry trees bursting through the windows, antique furniture covered with moss, that he will not take easily to the emphasis on merchandise. We are, however, coming to a time, when people will no longer be attracted by these

garish clamourings for their attention, to a time when consumers will want to see what they are getting and how it will work. Displaymen, hearing the tumbrils in the distance must face the future prepared to give the public what it wants. The public wants TELEVISION!

The industry is in reality ahead of itself. Due to the war, sets at the moment are far behind the strides taken already by scientists and engineers. We could have right now, except for the war shortages, larger screens and more accurate broadcasting. Yet now is the very time for the forward-looking displayman to familiarize himself with the coming medium so that he is prepared when the time comes to be in the lead of the new technique. Old-fashioned display methods are on the way out. And with them will go the die-hards who can do nothing but croak about the good old days. The die-hards will smother in their own head-shaking and viewing-with-alarm.

NEW TYPE WINDOWS FOR POSTWAR TELEVISION

MINDFUL of the sidewalk congestion caused by the experimental window television display in 1939 and to the consequent objections of retailers to this form of video screening, the Television Workshop has worked up designs of postwar display windows which will enable stores to enjoy full daytime window television without regard to the amount of daylight and noises from the street, and without causing sidewalk congestion.

Constructed in arcade fashion, and recessed eight to ten feet from the store's building line, the postwar video windows would be built at an angle of 60 degrees, permitting passers-by to come in from the sidewalk to view a store's window video screening, without causing sidewalk congestion.

A photo-electric device, which would automatically adjust itself to the amount of light coming from the outside, would

The only criticism that can be legitimately aimed at the use of television in display at the moment is the matter of expense. That is being remedied at this very moment, and by the time the war has been over for six months, the cost of using television in department store display will have been lowered to the point that such criticism will no longer be valid. It may be, of course, that some windows will have to be rebuilt along entirely new lines. But wouldn't most department stores be better off for some drastic face-lifting, anyway?

The possibility of fashion-shows, store activities, household talks, and living merchandise displays being televised in the store windows and interior cases is too vast to do more than mention in a short article of this kind. But any displayman will see infinite possibilities in tying up this newest of mediums with one of the oldest professions — selling something to someone who needs it.

shade the video screens, allowing full daytime viewing, according to the Workshop designs.

An acoustical device would adjust the audeo portion of the program to a level several decibels above street noises, projecting the sound only within the arcade area, thus overcoming the objection of city fathers to sound amplification from store windows.

The postwar display windows are designed to utilize video screens which are 18" x 24", with merchandise to be displayed around the screens. When larger screens become available, the windows could be adjusted to accommodate screens up to three-by-four feet and more.

The designs, developed by the Television Workshop, were executed by Donald Deskey, New York industrial designer, following several months' study of in-store television problems.

DISPLAY AND TELEVISION

By R. C. KASH

Editor, Display World, Cincinnati



Adams Hat Store Front Reproduced at NBC Television Studio.

WHAT does current store display lack, and does television offer anything which will meet its needs?

Obviously one thing to be considered is that display is "fixed"; it is stationary, in one spot. Hence it depends for its circulation on the pedestrians and vehicular traffic passing the window or those shoppers passing the display's location inside the store.

Display is static; in other words, it usually resembles a tableau rather than a living scene. The element of motion is absent, or, as used in the past, is not particularly attractive.

Another drawback is that many displays do not tell a clear, complete story about the merchandise they present. It is easy to see how this comes about when one remembers that a display must depend on a few words on the window cards, or create an impression through the general setting to tell of the merchandise's use, of what it is made, special features, accessories that go with it—and even portray something of the character of the store which is offering it for sale.

To the static nature of displays must be added the absence of sound as a further lack, and still another is the fact that most displays cannot demonstrate merchandise having special features, except along broad lines.

With the foregoing in mind, let us consider briefly what televised display has to offer retailers.

First there is the coordination of sound and sight; the merchandise is shown and described at length if necessary, and in addition to the voice of the person involved in the telecast can be added special sound effects to give more reality to the display setting.

There is the concentration of the prospective customer's attention; she simply must look at the miniature display window in order to follow the telecast; there is no distraction caused by the sounds of street traffic, the jostling of fellow-shoppers.

There is the novelty of television, another factor to hold the attention. This novelty will be such that even lengthily advertising plugs could be used, at least for some little time to come, and still hold the prospect's attention.

A complete dramatization of the sales story is possible. Thus instead of the simple setting, the isolated episode that is a display, televised display becomes a complete, well-rounded convincing package.

As opposed to these advantages, what will television lack that display now has?

The shopper is not able to make a personal inspection of the merchandise when it is displayed to her by television—another disadvantage with which display does not have to reckon at present. Further, she will not be able to study the presentation at her leisure; the details missed by the viewer are irretrievably gone; there is no turning back for further reference, as can be done with newspaper advertising, or no return to the plate glass of the display window for just one more look.

There will also be waste circulation in televised display, just as in any other form of advertising.

Among physical characteristics which televised display will lack are several important ones: first, color (although this may come in television relatively soon); second, the lack of a third dimension—always important in showing merchandise; third, size—the sheer impressiveness of the big display window will be done, and substituting for it will be the small television picture.

So in discussing the pros and cons of televised display, we see that modern retail

display has some advantages that television still lacks, and that television possesses quite a number of merits now owned by display. But when we consider that a store can use televised display direct to the home as a supplement to its regular window and interior display program, we see at once that the advantages of each system are retained; the complete, correlated program balances the lacks of each division. And it is significant, too, that probably most of the handicaps of televised display will be remedied within the first decade after the war; if this becomes true, then display by television will probably become the most powerful of all advertising media.

A Macy Display Man Welcomes Television

By WHITING THORNTON

Display Dept., R. H. Macy Co.

MY own first approach to television was that of an unbelieving artist finding a new and rather awesome tool. Somewhat the idea of a man who is not sure which is to be servant, which master. It is an attitude one quickly overcomes. Television becomes, after very short acquaintance, the kind of medium that is easy to work with, giving results that are definitely predictable.

From the point of view of department store display, its principle attraction is, at the moment, its novelty. People are thrilled and excited by first contacts with the new medium. This reaction is one that department store merchandising men have been seeking for a long time. With television, it's ready made. It was a surprise to me that people I had considered blasé and sophisticated to an extreme degree, are floored by the whole idea of television, and excited at the prospect of merely sitting in on a broadcast. Where, since the windows of Salvador Dalí, have displaymen been able to find such an attention-getter?

One approaches anything new with misgivings. You hear the supposedly devastating criticism that television cannot display merchandise adequately, since, at the moment, color is impossible to portray. Yet, except in rare instances, newspaper advertising for department stores seems to have done all right in black and white. Technically, a good artist can master the principles of what will work and what

Film to Cut Costs of Retail Video Operation

By JOHN FLORY

WITHIN the television industry it is generally conceded that film will play an important part as program material and as a means of cutting program costs for the average store using television.

Look, for example, at that interesting intra-store application of television known as a "jeep" system. Here screens set up in show windows and at strategic spots throughout a department store would carry programs (piped by coaxial cable from an upstairs studio) intended to catch the eye of the passing shopper. Since traffic within a store is constantly on the move, it seems logical that these jeep programs—which may largely consist of demonstrations of products in use—will be repeated over and over again many times during a week. The cheapest and simplest way of doing this would be to film the programs first. Merchandise can then be returned to stock and the actors dismissed. The film transcription is then available for running as many times as desired.

Next, consider the use which film may have in connection with televised fashion shows.

To produce such a program with attractive models, elaborate backgrounds, incidental music and over-all care in script-writing and direction, is bound to run into money. While a few dozen of the largest department stores in the nation can well afford to splurge upon such television broadcasts whenever they feel them necessary, what is the smaller store going to be able to do? Rather than attempt to get by with a half-baked production—which is no competition to the well financed show put on by a wealthier competitor across the street—it seems logical that elaborately produced fashion programs can be more economically syndicated by means of film at far less cost to the user than the preparation of his own show.

Indeed, a fashion show prepared on film in New York or Hollywood or even Paris can be shipped by air express, so that hundreds of local television stations throughout America will have the reels in time to telecast within a day or two of the time the subject is first released.

It will be common practice for Hollywood studios to prepare special short subjects of a promotional nature based upon each of the season's outstanding feature motion pictures. These de luxe "trailers," made available to local stations for department store sponsorship, will feature the latest in Hollywood styles. Because their cost can be charged off against a feature picture, it will be possible to make such television films with well known Hollywood stars, plus elaborate scenery and musical effects. Where fashions displayed in these trailers are tied in with merchandise available through retail outlets, this may well prove an effective inexpensive source of program material.

Likewise the manufacturer of a certain brand of dresses, for example, as a regular part of his distribution procedure, may have seasonal films prepared displaying his merchandise. Retail stores carrying this brand would then be able to secure these fashion reels at little cost to themselves.

Indeed there is every indication that the manufacturer of nearly every household product or device will be obliged to supply his dealers with entertainingly conceived motion pictures especially designed to promote sales through the medium of television. Hardware gadgets, attractive interior furnishings, and the merits of jiffy cleansers quite logically will be ballyhooed by their makers in film transcription form calculated to enlist the cooperation of the local department store and its television director.

Where films especially made for television broadcasting are supplied by manufacturers or producers of syndicated shows,



JOHN FLORY

Documentary and Television Film Producer,
Grant, Flory & Williams, New York.

the local television station can stay on the air with fewer technicians. Those department stores contemplating the ownership and operation of their own television stations will thus find film important in permitting them to offer prolonged broadcast schedules, without having to maintain full studio crews except for a minimum number of hours a day, since movie programs can comprise the balance of the time on the air.

Another important advantage of pre-filming television programs is that time and care can be lavished upon a performance beforehand. Through ease in editing, a smooth continuity can be maintained, and last minute hitches on the air are prevented. For actors who become ill at the crucial moment, or amateur talent inclined to muff dialogue, are an ever present peril in live television programs. Use of film forestalls these situations.

In addition, the advertiser knows in advance exactly what his program is going to be like when it goes on the air. There are indications that many television "commercials" will be prepared at the outset on film. This method avoids any danger of product demonstrations going awry at the last minute. Zippers that fail to open, suds that, on the spur of the moment, do not clean as described, mechanical gadgets liable to unforeseen breakdowns—all these are urgent reasons for the "commercials" being canned on film rather than presented by a live telecast.

Then too, the use of film in preparing these plugs permits the television producer to take advantage of every device of trick photography known to Hollywood. Animated cartoons and three-dimensional

Network Fashion Reviews

By TED SOLOMAN

Display Director, A. Harris & Co., Dallas, Texas

objects, moving as if by magic, can only be done smoothly through the means of the stop-motion movie camera. Various other devices of the special-effect studio such as rear projection, micro-cinematography, time-lapse studies, and optical printer effects, can only be handled through the medium of the film.

For instance, the director of a department store television program might wish to work out a musical number in which empty shoes are made to tap out a little dance. The use of threads tied to slippers in a puppet technique looks amateurish, whereas the same episode prepared by means of a stop-motion film camera can be done, as if by magic, without strings.

Another advantage which film has for the producer of department store programs is in the matter of "bridges." In television programming there are frequently unavoidable pauses between live studio set-ups. These can be smoothly bridged by judicious use of film sequences or Leica slides. Such inserts permit scenes to be changed and props to be rearranged without destroying the continuous flow of a program on the air.

Local 16mm. cameramen, operating on a free-lance basis, can contribute—if properly encouraged—a wealth of material on film which can be used by department stores to embellish their television programs. Home town personalities and scenes of local significance might well be filmed silent and televised with an off-screen narration. If these were covered with an eye to tying them into a store's general exploitation program, they could be of very real sales value.

In conclusion, this should be kept in mind: Television stations, if they are to remain on the air any considerable number of hours a day, will have to devise interesting program material on far lower budgets than Hollywood is accustomed to lavish on its theater fare.

Thus, television will be forced to take advantage of one reservoir of script ideas which Hollywood has woefully neglected, namely, the whole field of popular education. Many semi-educational and informative programs can be put on the air inexpensively. Instruction in various techniques and discussions of arts and sciences are available. In the preparation of all this documentary material, film will prove a stalwart ally of the department store venturing into this new and valuable medium.

IN the post war era merchandising will be invested with voice, animation and color. Visual selling will be dramatized, will be alive with motion as never before.

"Live" style shows with their innumerable limitations, will be supplanted by lavish televised, techni-color fashion pageants, with Powers' and Connover's choicest models showing off the merchandise simultaneously being displayed in store windows and advertised in local newspapers.

As I visualize it, the manufacturers will periodically pool their resources to produce and broadcast national televised fashion revues that will advantageously depict the salient features of their individual products. Naturally, these broadcasts will be well advertised locally and will be timed to secure the largest possible audience in each community.

It seems reasonable to assume that the local merchants will not be called upon to shoulder any part of the expense of these productions other than the expense involved in providing the required television receiving apparatus and suitable auditorium.

I do not think that the advent of televised merchandising will mean the obsolescence of window displays. Rather do I think that one will be used to augment the other. And it is entirely possible that ultimately televised window displays with sound, color and plot will be a practical reality. Obviously, such an eventuality would swell the audience of potential purchasers by a legion of passers-by.

These triple-threat television broadcasts are sure to stimulate department store sales beyond the fondest dreams of the most visionary merchant and, at the same time, will cut the promotional expense involved in the sale of every sort of merchandise.

Try to imagine a typical combined television, window display, newspaper, radio, promotion of the future. The city is Dal-

las, Texas, and the day is Saturday, August 6, 1950. In the morning newspapers of this day, the local department stores have run half page spreads announcing the exact time the television program will be broadcast, the title and cast of the production and a Hollywood build-up of its *entertainment* values. Being August, the production is appropriately aimed to stimulate the sale of furs and the appeal is, therefore, directly to women.

Supplementing the newspaper announcements, spot radio reminders of the coming feature are broadcast throughout the morning. Emphasis is, of course, placed on the fact that listeners who do not own television receivers are invited to attend the televised fashion revue at their local department stores' auditoriums.

At the same time, the furs and accessories slated to appear in the television production are on display in local department store windows and, more informally, in conspicuous spots around the auditorium itself.

Let's sum up the overall effect of this promotion thus far. You have appraised the women of the City of the fact that there will be a dramatized, technicolor televised showing of furs, with celebrated models and screen stars in the cast. You have done this through the local newspapers, through spot radio announcements and by means of show cards in your synchronized window displays. And whether or not the women ever actually view the televised revue at home or in one of the local department stores, they have been made definitely fur conscious. In other words, there has been no waste motion in the exploitation and there has been no appreciable increase in the advertising budget, since every progressive store advertises its style shows in the newspapers, and many via radio. Besides, inasmuch as the same televised production is to be seen in every cooperating store in the City, the cost of the newspaper and radio adver-

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Televised "Commercials"

(Continued from page 33)

without additional expense. It has its draw-backs, however, in that the initial expense is usually quite great; the film may quickly lose its timeliness; it looks like a commercial film (and people don't like commercial films).

Every advertiser, no doubt, will have his supply of films, the E. T.'s of television, for (1) use by smaller stations and stations in remote areas; (2) when he wishes to reduce the cost of his "commercials"; (3) as "spot commercials" lasting one minute; (4) when film is the only way he can tell his story.

To eliminate some of the objections to the use of film, the sponsor might use a combination of both film and live talent, in which case, film "clips" would be utilized for sequences not otherwise obtainable in the studio.

Of "film commercials" cartoons are enjoyed most, and consequently will have a greater "Hooper" rating than the straight commercial film.

4. GADGET COMMERCIAL: The least expensive type of "commercial", which may find much vogue with low-budget advertisers. Uses puppets, mechanical devices, slides, and other contrivances or "gadgets" with off-camera voice.

5. REMOTE PICK-UP: The last type of commercial would be one accomplished by remote pick-up. By use of portable pick-up and transmitter units, which until 1942, were housed in large vans, the commercial may actually show a product in use in a typical consumer's home, on sale or demonstrated (in fashion shows, cooking schools, sewing classes) in department stores, etc. The remote pick-up offers the most convincing type of commercial, as it takes you to the very place the event is occurring. With the remote pick-up, Ford would be able to let you see the Fords roll by (as they come off the assembly line), take you right into the factory to let you see how carefully machined each part is. The Florida or California Chamber of Commerce could let you see how inviting its climate is as you freeze in less temperate zones. Air transport companies will take you to the airport to show you its superliner as it takes off for China; and then show you the interior of the plane while

in flight! Although this type of "commercial" is yet to be used, the remote pick-up is already being used for sports events, parades, etc. NBC is at present televising sports events from Madison Square Garden by remote pick-up each Friday night.

It can be safely prognosticated that the remote pick-up will find much use in commercial television.

Of the "commercials" discussed, the Visual Commercial will probably be the most commonly used, with the "Gadget Commercial" a runner-up.

Television for Retailers

(Continued from page 35)

How much will it cost? Will it be prohibitive for the average store? The answer is—no. But getting down to concrete figures, here they are: The cost of a simple system involving only one camera and few receivers, ranges from \$25,000 to \$50,000. More elaborate systems, providing two cameras and 50 screens, will cost nearly \$100,000. When this is amortized over a period of ten years, your capital expense is about \$10,000 per year for a \$100,000 system.

What about the cost of operation, maintenance, etc.? The engineers at DuMont Television in New York have figured the cost of such a system, including amortization, operation and maintenance would come to about 65c to 75c per minute.

A first-class intra-store television system can be operated, including depreciation, power, maintenance, props, talent and occasional film and entertainment features, for as little as \$250 per day. If the cost were spread over ten departments, namely dresses, coats, millinery, shoes, hand-bags, lingerie, men's wear, children's and infants' wear, furniture and housewares, the cost is only \$25 per day, or \$150 per week per department—a very modest sum as advertising budgets go.

Who will operate the system? It will probably be under the jurisdiction of a "television director", operating in conjunction with the display and advertising departments, with the display manager in charge of all props, backgrounds, and other studio requirements. For this, display managers will either undergo special training or will gain experience the hard way.

Now a few words of caution. Give careful thought to the television requirements of your store and do not rush in helter-skelter; secondly, make your plans far enough in advance, so that any future remodeling will include television in your blueprints for postwar. This will save a lot of headaches later—and a lot of cost.

If you have made your decision for either intra-store or broadcast television it is well to place your order as soon as possible with the equipment manufacturers, who will fill orders in the sequence in which they are received.

Television is not on its way . . . it is here! As soon as the war is over, you will enjoy a very satisfactory television service.

Color television is coming. Its development, which CBS has advanced, will probably be perfected for commercial use within five years after the war's end.

Department store networks are not far off. Within a period of ten years after the war's end, probably much less, you will see some forms of department store network in operation, probably occupying the daytime hours.

"Jeep" television will be as common in department stores as escalators and air-conditioning—perhaps more so. Fully 500 stores are expected to have jeep television within one decade after Victory.

Television is a selling tool which stores will find useful and essential in competing with chain stores, mail order houses and "Old Man Depression" himself.

Television will lower selling costs, shaving 10% to 20% off advertising budgets, possibly more.

Television presents a challenge to every merchandiser—a challenge to the ingenuity and showmanship of American department stores. I am sure the challenge of television will be met in a manner that will do credit to all concerned—and to the satisfaction of an eager, expectant public.

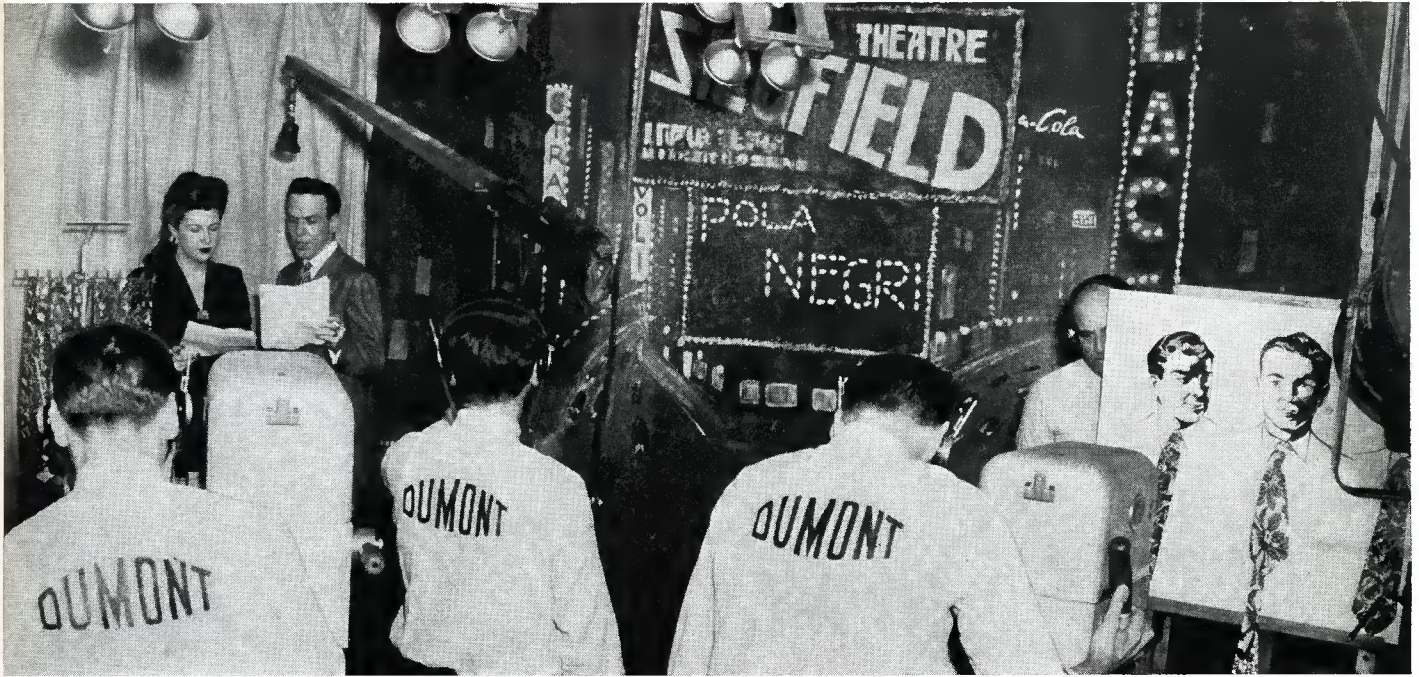
Sports On Television

(Continued from page 28)

ture theater owners, who will attempt to use television as a means of increasing their box-office receipts.

In any case, the television listener can expect to see televised every sporting event that comes along—from championship prize-fights and horse races to apple-crate push-mobile contests!

3: OPERATION AND MANAGEMENT



A View of WABD-DuMont During a Telecast of "Interesting People," with Dick Bradley Announcing.

TELEVISION STATION OPERATION

By SAMUEL H. CUFF

Manager, Station WABD-DuMont

ANY discussions on television station operation must necessarily be divided first into two main categories and then again into several subcategories.

First of the two main categories is to differentiate between television station operation and radio station operation and to mark similarities and differences. In organizational setups, there are a large number of practices, standard in radio, which will be adapted by television. In this respect it might be said that television, unlike radio when *IT* was launched, has certain precedents, standard practices, and trade terminology which gives it distinctive advantages.

Apart, however, from the organizational setup, there is very little in television that is like radio. Radio is very much more simple to operate than television. To illustrate this I select merely one point out of a basket-full. Let us assume that on relatively short notice a certain sponsored program is cancelled. In radio, on network operation, a staff orchestra can be

assembled in a matter of an hour or so fill-in can be devised. This orchestra can rehearse anywhere—it walks into the studio for its broadcast, microphones are set up and it's on the air. In a local station operation it's even more simple than this. An announcer or production man reaches into the record library, pulls out an album of popular or classic music, and the program is ready. Timing is no problem because any general musical selection whether alive or recorded can be faded off when the period is up.

Consider such an event however on television. In the first place, talent has to be cast and lines have to be memorized. Then rehearsal periods of at least four to one ratio have to be set up and every single one of these rehearsals has to be carried out in the studio with the crew used for the telecast. Scenes and settings have to be devised, title cards, credits, etc. have to be drawn. Timing has to be more or less exact because you can't fade off a television show in the

middle of anything, and, you can't stretch a television show by merely repeating a few bars of music. Films, of course, can be used but until such time as films are made specifically for television, it's rather difficult to acquire any kind of film entertainment for emergency showing on short notice. It's possible however that special films will be made and held in readiness as standbys but this is something which is at least two years off.

REHEARSALS: Rehearsals for major television programs are a rather complicated affair. First there is the memorizing of the lines by the actors; then there are the settings, the effects, the plotting of the show, showing camera action with the proper distances to individual scenes for close-ups and long shots, and the exits and entrances of the various actors onto the sets; then the costuming; and finally the whole is put together into dress rehearsals.

Taking these various aspects of the rehearsal, one at a time, there is first the memorizing of the lines by the actors. This can be done anywhere and until it is completed and a few preliminary line rehearsals are held, it is not necessary to come into the studio which will be used for airing the show. During this period the art director has set up his scenery and the show is plotted so that cameras can move about without getting in each others way. Costumes, color, and design contrast are then set up and finally the program is ready for it's first camera rehearsal. It usually develops that during this first camera rehearsal a large number of changes are made in scenery and costumes so that there is the perfect color contrast. Various types of lights are used each having their own color contrast effect. For example when incandescent lights are used reds become white; orange pink and kindred tints become gray; blue turns to black. When mercury vapor lights are used reds become black. With this lighting, red lipstick and ordinary makeup is satisfactory. With incandescent lights the lipstick has to be either brown or blue and rouge has to be eliminated and brown pancake makeup substituted.

In the show itself there is the "focal" problem. Greater light gives greater focal depth, thus strong light is very desirable. Yet regardless of the quantity of light all action has to be planned so that there is a relatively small amount of forward and backward movement on the part of the actors. And when this movement does occur it must be slow so that the cameramen can keep his subject in costant clear focus. Motion picture technique in this respect is the proper one here. A certain amount of slightly out-of-focus "shoot-ing" is permissible when panning, but in dolly shots the focus must be absolutely perfect.

EDITING SCRIPT: No standard practice has been adopted with regard to the editing of scripts but since television is like radio in that it is designed for home entertainment, scripts are edited down to radio standards. Language used on the legitimate stage and cabarets is definitely tabu for television. Even certain lines which might be satisfactory in the movies have to be deleted. There is, however, this one point in television broadcasting

which does not hold true in radio. Television has sight, and the language can be more elastic when it describes an action which the audience sees than would be the case when the audience, being blind, as it is in a radio program is supposed to imagine the action that is taking place.

Editing action and costumes in television are actually more important than editing the script itself—for a perfectly innocuous statement could conceivably be accompanied by a certain action which would give it an entirely different meaning. Likewise, costumes have to be carefully edited. We have found that when costumes fit naturally into the story almost any amount of undress is not objectionable. You can't do a strip-tease nor any suggestion thereof. Nor in fact can you put a singer in a bathing suit but you can display both bathing suit and hosiery with perfect grace.

It has been our observation at Station WABD that radio directors have very little trouble with editing because they are naturally conservative, having been basically trained in programming for home reception. Non-radio directors quite frequently have a great deal of trouble in editing and the station management has had to take a hand in this task. This has so far not been necessary when programs are directed by radio men.

HOW A SHOW IS PUT ON: It is not the purpose of this narration to discuss any of the engineering aspects of television broadcasting. Rather station management and a little bit of programming. Thus in describing the method in which a program is aired only the program aspects will be discussed.

Television, like radio, has a studio control room except that in television cameras, as the reader has probably observed, are always referred to as camera chains. The reason for this is that the studio television camera, unlike the motion picture camera, is not a complete unit in itself. Let me explain. The studio part of the television camera consists of a "dolly" upon which is mounted the camera head lens, iconoscopes and a focusing screen. In DuMont cameras, unlike all others, are equipped with a miniature television receiver so that the cameraman constantly sees the picture from his camera as it actually goes on the air. The advantages of this are that the cameraman sees not the entire stage but only the exact portion that his own camera is picking up. He therefore can cut his lines both vertically and horizontally down to the finest point possible. He knows, for example just exactly how much head room he has and just exactly how much space he's showing on the sides. Incidentally, it is this aspect of the DuMont camera which has enabled directors to put on elaborate shows in a very small space. The cameramen can cut into his set without any fear of picking up anything else and sets can be arranged one right beside the other.

Stringing back from the studio portion of the camera is a heavy cable which extends back into the studio control room to the other end of the camera chain. Here, at the other, or rear end of the chain is a monitor mounted upon a rack over the control panel. Thus, in a studio where there are two cameras, the director can select his shots in advance. In such a setup there would be two monitors, one

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Television Show Sponsored by Marshall Field & Co., Chicago. Girls Wearing Clothes from the "28 Shop" Are Seen Before the WBKB Cameras.

Postwar Television Standards

By DR. ALFRED N. GOLDSMITH

THE brightest prospect on the radio horizon is television broadcasting. This remarkable accomplishment—which will bring the priceless gift of sight to the radio audience—is not only a great service to the public but also a major factor in the future prosperity of the radio industry. Its early and full development is therefore essential from the viewpoint both of the nation and of those who will produce and sell television programs and receivers.

Television differs markedly in degree from sound broadcasting in one major respect. The necessary standards in sound broadcasting are few and flexible. It is easy enough to transmit and then receive sound programs on receivers having widely different circuits. One minor exception to this rule is FM. broadcasting which does, in fact, require a greater number of basic standards than the earlier type of broadcasting. But television requires a rather impressive and complicated group of standards. These are necessary if every receiver is to be capable of receiving all transmissions. Extreme flexibility does not appear practical; definite standards seem essential to convenient and orderly television development.

Among the television standards which are needed the following may briefly be listed. It is necessary to specify the shape of the rectangular picture. That is, we must state the ratio of its width to its height. We must also describe the amount of detail in the picture by specifying the number of lines which are produced for each picture and how many of these actually appear within the visible picture area. In addition the number of full pictures or frames transmitted per second must be known, as must also the number of fields (or partial pictures) which are transmitted. This involves what is known as the type of interlacing of the field pictures—an expedient used to eliminate picture flicker.

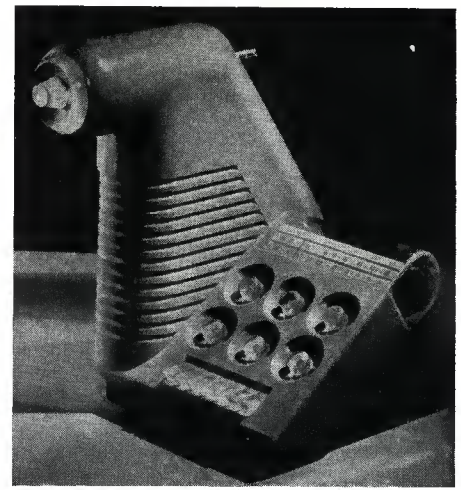
Further standards include the method of modulation. It is necessary to know whether higher antenna currents at the

transmitter mean a lighter or darker part of the picture. It is also necessary to specify the type of horizontal and vertical synchronizing signals, these being the brief signals which tell the receiver, so to speak, when we reach the end of a line in the picture and when we reach the end of a complete field or partial picture. Further necessary are standards on the type of sound transmission (am. or FM), and the amount of pre-emphasis of the higher frequencies to which the sound is subjected.

Another set of necessary television standards deals with the width of the television channel and the arrangement of the sight signal and the sound signal within that channel. Also included in any orderly plan for television development must be the number of available channels and the frequencies allocated to each of these channels.

All of these present an apparently formidable list of necessary standards. Fortunately numerous engineers in well-equipped laboratories have carried out sufficient work to enable them to propose standards for each of the preceding quantities which will lead to satisfactory service to the public. The preparation of such standards has been entrusted to several groups in the Radio Technical Planning Board, which is a large group of engineers set up at the suggestion of the government and sponsored by industry and the engineering societies and similar radio bodies. Panel 6: Television of the RTPB has prepared numerous useful specifications. Additional study will be given by Panel 1: Spectrum Utilization, of the RTPB to the best means of using frequencies for television. And Panel 2: Frequency Allocation, of the RTPB will prepare recommendations on the frequencies to be assigned to television and the widths of the television channels.

When all the standards and specifications produced by the RTPB are in appropriate form, they will be submitted as recommendations to the government, which will presumably issue regulations through the Federal Communications



A Postwar Television Set as Conceived by Industrial Designer Jean Reinecke of Chicago.

Commission. It is hoped and believed that the government, the engineers, and industry will be in reasonably full agreement as to the nature of these necessary standards. Wisely selected, such standards will permit the early initiation of television broadcasting service and the speedy manufacture of television receivers on a large scale. Considering the employment capabilities of these fields, together with the need for such employment in the immediate post-war period when our returning service men will rightfully look to industry to offer them new opportunities, it is clearly essential that wise standards shall be speedily promulgated, widely accepted, and intelligently applied.

As the years go by, there is no doubt that the engineering developments in the television field will step by step lead us to improved types of television. Pictures of higher detail, as well as color pictures will ultimately be offered to the public. It would be well for the industry, however, to remember that wise parents teach their children to walk before they urge them to run. For this reason television should be started on a satisfactorily operative basis rather than on some highly idealized but remote and technically inadequate engineering knowledge to permit an excellent television service to be given to the public and it is to be hoped that the standards which will be issued will fully utilize existing knowledge and enable such knowledge to be speedily turned to the benefit of the public and industry.

Standards in television can never be

permanent nor is it desirable that they should be. They represent our best knowledge and practice at a given time. As our experience grows, our capabilities expand and correspondingly improved standards are justified.

But it is essential that standards be stabilized for reasonable periods of time. Otherwise the public is confused; the purchase of equipment is discouraged; equipment becomes obsolete too speedily;

investment in plant and broadcasting facilities is discouraged because of an unstable market and an excessively clouded future.

Since the average receiving set has an operating life of about seven years, it is likely that standards in the broadcasting field should be set for not less than five years and perhaps as much as ten years. Government and industry alike will do well to consider the advantages resulting from the prompt selection of the best

available standards, and the maintenance of those standards for a sufficiently long time to permit orderly development of the television art. Wise standards are necessary, but stable standards are also requisite. Constant change is as irritating as a rigidly fixed system. And the radio industry and those who merchandise its products well do well to remember, paraphrasing an ancient proverb, that "Rolling standards gather no financial moss!"

The Television Technician

By WILLIAM WALLACE

LIKE television itself, the television technician is pioneering in a new field. Those who want to become studio technicians have an excellent future, providing they are ready and willing to work hard and long, and to grow with Television. There is no shortcut to success in a pioneering enterprise.

The television technician must learn to be an all-around man, prepared to step into any gap that suddenly develops. Like the stage, the television show must go on . . . and it's up to the technician to see that everything is ship shape at all times.

Although tomorrow's technicians will have superior equipment with which to work, unhandicapped by obsolete equipment rendered irreplaceable by war, they will follow in the footsteps of today's studio "commandos."

Let's briefly review the duties of the persons responsible for the equipment that places a television program on the air.

From the time the staccato command of "Stand By, Studio" filters through the studio inter-communications system until the director says "Well Done, Studio" at the program's conclusion, every man is at his place working in perfect unison, like so many members of a football team, with the director calling signals.

Before the show goes on the air the lighting technician must see that the scene is properly lighted. He must prevent shadows, or he must create them, depending upon what the director wants. He must use his lights for special shots

required by the script. He must be alert at all times, following the action of the program with proper lighting at the right time and place. He must anticipate camera movements, and be ready to move quickly the moment orders are given by the director. The lighting technician must know how to care for his lights and how to make quick repairs when necessary.

Now we come to the camera technician. The moment the first command comes through the inter-com system, his camera must be focused on the scene desired, ready to move quickly and assuredly to the next scene. He must "frame" pictures which are pleasing to the critical gaze of the director in the control room . . . and to the television audience miles away. He must anticipate, as must every studio technician, each sequence and be prepared to move his camera quickly and quietly to the next position, bringing his camera swiftly into focus. In so doing, he must handle his camera in a manner not to damage the cables that lead to the control room.

Since television is a combination of hearing as well as seeing, the mike-boom man must be on his toes to catch the sounds emanating from the performers. He is located at the end of a long boom, a rod mounted on a dolly, which may be moved about the studio with great speed. Mike-boom men must watch the camera men for warnings when the mike is showing in the picture, as nothing can be so distracting as a mike bobbing in and out like a cork in water.

The sound technician should also be alert to the possibilities of using planted "mikes" in addition to the regular boom mike. In some scenes the actors may be so far apart as to make mike-boom use difficult. In this event, a mike "planted" in a vase, behind a curtain, in a fireplace, or other hidden spot would do the trick.

Co-ordinating the over-all studio activity is the studio manager, or stage manager as he is sometimes known. His job is to see that the show is smooth as possible by serving as a link between directors and actors.

He should have worked on all of the cameras and done all the studio jobs so that he is thoroughly familiar with every studio operation. He should know each of the shots planned by the director so that he can signal to the camera men the shots coming up.

By means of hand signals he starts studio action, speeds it up, or draws it out. By familiarizing the cast with his signals he can signal actors into positions for better pictures. Actors who move out of frame can be motioned back to position by the studio director. Dozens of situations arise which require quick thinking, quick action by the studio manager.

The television technician's life is not an easy one . . . but what it lacks in comfort and convenience today it will make up a thousand-fold tomorrow.

When you see a good show on the air, think of the hard-working, sweating technician—won't you give him some of the credit?

Equipping Your Television Station

By HERBERT E. TAYLOR, Jr.

A GREAT many potential investors in television have gathered an erroneous impression, possibly from copywriters' pipe dreams and expensive experimental operations on the part of a few of the established telecasting stations, that an enormous financial outlay is necessary to construct, equip and operate a telecasting station.

This is not true. When these pipe dreams are brushed aside and a careful analysis is made of these expensive-looking operations, an investor will find that he does not require a million dollars to establish a telecasting station in his city, and that he is in a position to consider the necessary cash outlay for a modest beginning.

Of course, if the investor visualizes his station in the proportions of Grand Central Station, equipped with Hollywood lighting and trick stages, he must pay for it. There will be stations of this type in existence after the war, but they will be located in key cities for network originating programs. Common sense tells us that few of the smaller cities can hope to support a station of this type, nor is it necessary when you consider the advent of networks which shall provide the extravaganza programs which standard radio and the motion picture industry have taught the public to expect.

Naturally, these networks will not be available immediately after the war, but film programs will. Many advertisers, who have had the opportunity to study "television selling" through experimentation on existing telecasting stations, are planning today to place their post-war television programs on film for distribution to telecasting stations in every city.

The average or representative station would not constitute a "network originating" station, and would therefore require only a modest investment for equipment and surroundings as compared to the originating station. The average telecasting station will present many original programs, such as simple dramatic sketches, variety programs, fast-moving quiz programs, but will not undertake elaborate "live talent" studio productions. These

elaborate programs will come via films at first and networks at a later date. It is a natural supposition then, that the role played by the film studios will be important for a long period of time in some instances and for a shorter period in others, depending upon the rapidity with which network facilities, either coaxial cable or satellite relay stations, are completed.

Prior to clearing the pipe dreamer's smoke away, in so far as equipment requirements are concerned, perhaps it would be best to consider a few of the problems affecting your coverage area.

The first thing an investor learns about television is that height of the transmitting antenna is of prime importance in determining television signal coverage. Schooled in the ways of standard broadcasting, he will be inclined to select a fairly high building in the center of the city to be served. Actually, a hill or mountain 10 to 15 miles outside the city limits might work out to much better advantage in extending the station's signal coverage. In many instances it has been proved that a transmitter located outside the city limits on a sufficiently high spot can increase its primary and secondary coverage areas from 40 to 50 per cent. Naturally, the initial cost is increased by separating the studio and the transmitter, but this increase is slight in comparison with the results achieved. The increased cost arises from the need for such extra equipment as a relay transmitter at the studio and a relay receiver at the transmitting site.

The cost increase, however, is amply offset by the increase in area covered and population served. These are important factors in determining advertising rates when full commercial status is attained. Television parallels radio. The television station delivering the largest looking-listening audience is in a position to earn the lion's share of advertising revenue and command the greatest attention.

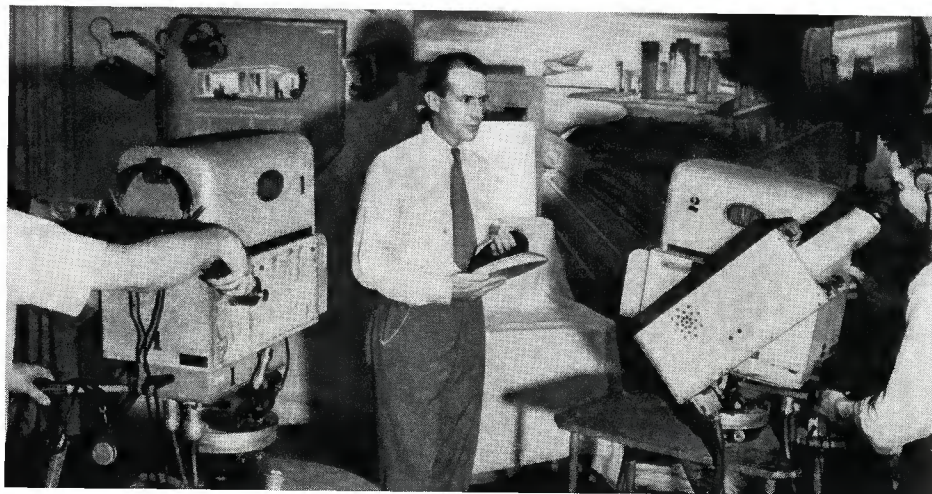
Among other problems to be considered by the prospective investor are:

1. Accessibility of transmitter to power lines, roads, telephone lines, water supply, etc. The capital investment may increase considerably if you suddenly find you must carry your own power lines for a quarter or half mile or you have to build and maintain a roadway of the same length.

2. Proximity to air routes and airports. This information must appear in your F.C.C. application, but don't make the mistake of taking an option on or purchasing the property before determining your position relative to the air routes.

3. The possibility of combining your studios and transmitter at the same site. If a desirable location is found within the city limits, this would not constitute a problem. However, a careful survey of your location outside of the city limits may indicate that transportation facilities permit the studios to be located at the transmitter site, thus reducing your capital investment.

Equipping your television station may be compared with the purchase of an ex-



pensive set of silverware. If you can not afford the entire set at once, you may purchase one piece at a time until you have accumulated the pieces to achieve the purpose and appearance.

For example, a modest beginning for a telecasting studio would require:

- A. Studio facilities
- B. Film facilities
- C. Foundation for network participation

I am best acquainted with Du Mont equipment; therefore, I shall base the requirements on the Du Mont line. Prices quoted are based on pre-war labor and material costs.

Studio in the proportion of 30 x 40 feet should be ample for "live talent" shows in a network-affiliate station. At the start, this studio could be equipped with a single camera and control equipment. However, for ease in operation and smooth programming, two cameras are a veritable necessity.

2 Iconoscope Cameras equipped with push dollies and Studio Control Desk\$23,000.

Necessary lighting and sound equipment, such as mikes, intercommunication system, sound control equipment\$10,000.

Your film studio, being of prime importance, may be started with one projector and a film pickup camera. Here again, for full-length pictures running an hour or more, two projectors would be an asset. However, for lower investment cost, you may start your station with the one. (Du Mont's station WABD in New York, concentrating on "live talent" production, has been operating with a single projector for four years.)

1 Film Projector\$6,000.

1 Iconoscope Film Pickup Camera\$3,000.

The master control board is the heart of the station. The design of the board permits expansion and complete control over the entire station. It is here that all of the shading is accomplished whether the program originates from the "live talent" studio, film studio, field pickup, or network relay. It is here also that the "live talent" studio, film studio, field event and network programs are patched in. The incorporation of the control board at the start accomplishes a specific shading job and paves the way for future expansion.

(Continued on page 58)

Television Chaos Avoided!

By WILL BALTIM

TELEVISION BROADCASTERS ASSOCIATION, INC.

THE advent of television as a commercial industry on the American scene has stirred considerable speculation as to the manner in which this new-born art would make its bow. Persons with long memories and romanticism in their bloodstreams have the notion television's course will parallel that of radio back in post-World War I days, since history seems to be repeating itself in many other ways.

The early days of radio undoubtedly were flavored with pinches of romanticism, concocted into gobs of fun, exuberance and an infectious desire to toy around with a new fangled gadget.

But the inner circle of today's broadcasters, many of whom participated in the birth of radio broadcasting, are fully aware of the pitfalls and, in some instances, purposelessness that accompanied the sudden and unexpected appearance of radio as an instrument of entertainment—and financial reward.

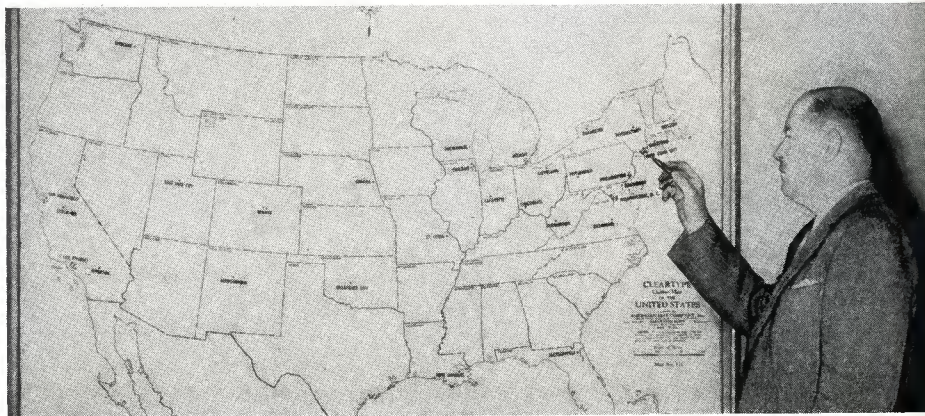
Think back to the early 1920's when broadcasting "caught on" and stations mushroomed indiscriminately across the nation. It seemed everyone recognized that radio broadcasting was likely to grow into "something," and the native-American impulse to "get in on the ground floor" on anything that looks like it is going to develop into a financial "something," manifested itself quickly and broke out in a wild rash.

The net result of this unrestrained plunge into regions newly discovered but hardly explored found many a would-be broadcaster with a radio station on his hands and, frankly, nothing to do with it. Besides, he had considerable company on the same channel in adjacent areas, which provided the early radio fan with a variety of discordant harmonics that played a maddening tune on his nervous system and created a revulsion that might have wrecked the budding new industry had the mess been permitted to continue unchecked.

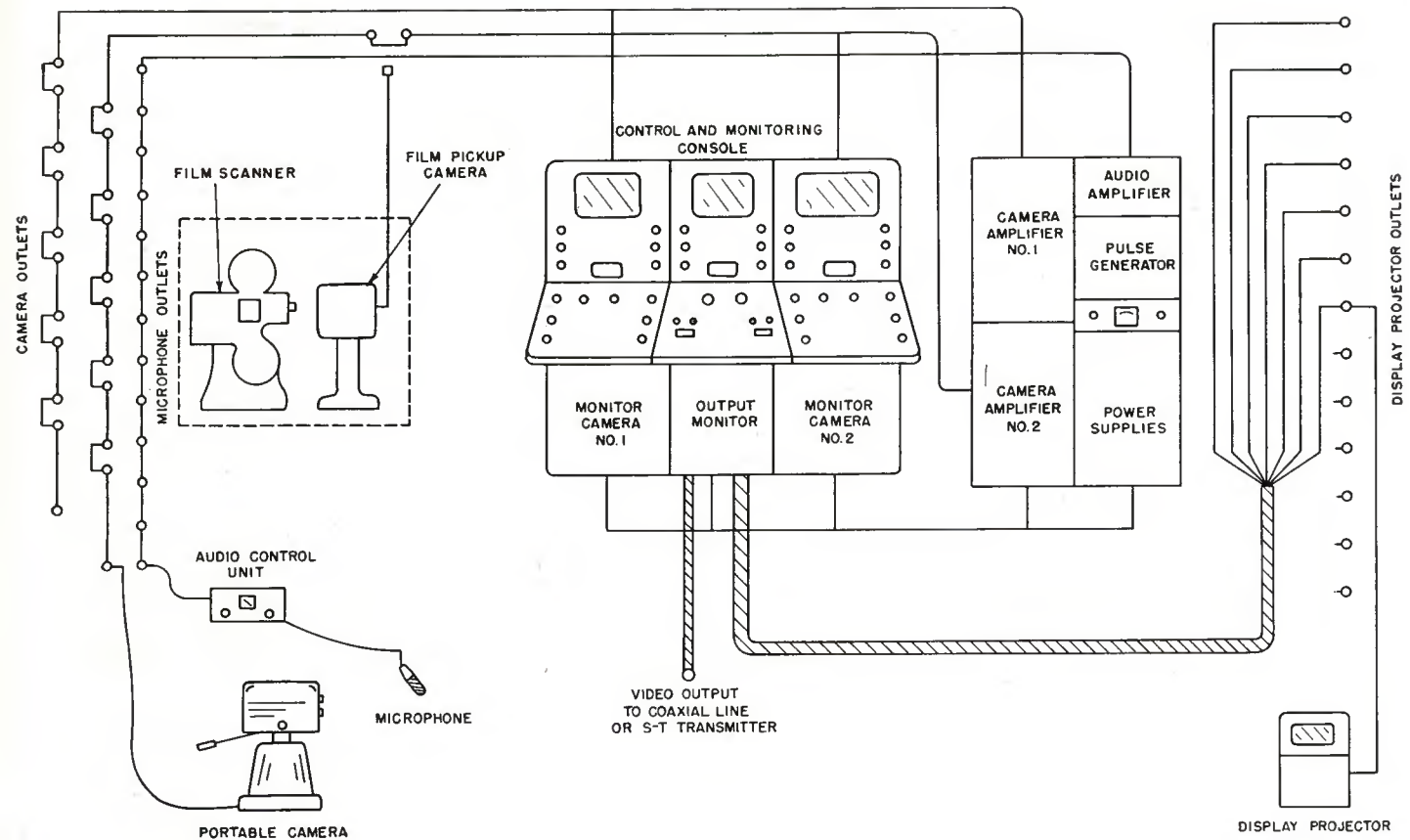
Fortunately, men of vision rolled up their sleeves, took the situation in hand and untangled the knotted wavelengths. Through efforts of the Federal Radio Commission, which later became and remains today the Federal Communications Commission, a solution was found to what constitutes commercial radio broadcasting as we know it now. Those who took a fling at the new industry blindly and without purpose were eventually weeded out of the ethereal lanes; those who exercised the American right of free enterprise along paths that bode well for the nation's millions, remained to create the tremendous industry radio has become.

The indecisions that characterized radio's birth will not be duplicated in television. Unity of action and spirit and the determination to bring onto the American scene an instrument of high

(Continued on page 54)



Allen B. DuMont, President of the Television Broadcasters Association, is Here Shown Looking at Map of Future Network Outlets.



Industrial Television Systems

By JAMES D. McLEAN

AN INDUSTRIAL television system is one in which pictures and sound are transmitted from one point to another by means of wires or coaxial cable for various private commercial uses. Such systems do not require licenses granted by the Federal Communications Commission or approval by the Government.

Industrial television might be used in a large manufacturing establishment to allow management to view operations in the various departments of the factories. Hazardous manufacturing operations in dangerous or explosive atmospheres could also be watched by such a system. In fact, industrial television can be used for any application "if you want to see where you don't want to be."

Perhaps the most important application of industrial television after the war will be its use as a powerful merchandising medium for department stores. Large department stores have thousands of display points carefully chosen to catch and di-

rect attention to specific products. The animation of certain of the primary display points and the addition of sound bringing an advertising message or an explanation is regarded as a great step forward in advertising technique. The ability to televise fashion shows, demonstrations, featured products, etc., on one floor of a department store and transmit pictures and sound to display projectors on all other floors and in the show windows at the same time, provides a service long desired in the department store field.

The apparatus required in an industrial television system is obviously not as complicated as that required for a regular television broadcasting station. It must be kept in mind, however, that industrial television systems should use standard television studio equipment generating standard television signals, since the installation of such equipment will allow the broadcasting of television programs from any establishment using this industrial television system by the addition of ultra-high frequency radio relay transmitters which can carry the pictures and

sound from the department store to the nearest television broadcast station. Using standard television studio equipment in a department store will allow that organization to produce programs not only for internal distribution but also for broadcasting over local television stations.

Above is a block diagram of a typical industrial system which outlines the basic equipment which is required. On the left are shown outlets for both portable television cameras and sound microphones. The diagram is set up to show how these camera and microphone outlets can be distributed on several floors of a department store. Two channels are provided for two portable cameras as well as an alternative film projector and film pick-up camera. Picture and sound are picked up by the portable cameras and microphones are fed to a control and monitoring console through cables. The monitoring console is a simple adaptation of the standard console supplied to television broadcasting stations. Associated with the monitoring console is a

camera amplifier channel for each portable camera, an audio amplifier for the sound, and a pulse generator to provide the timing signals.

The control and monitoring console includes monitors for both cameras and an output monitor as well as picture control and switching equipment. Two outlets are available at the output monitor which allow picture and sound to be fed through a multiple cable to any number of display projectors throughout the store and also to carry the signals to a coaxial line or low powered link transmitter for transmission to the nearest television station. The control console and associated equipment can be installed in a small room centrally located in the store, thus providing a central point from which all operations are directed.

In conjunction with the television system it is proposed that portable water-cooled mercury vapor flood lamps be used with suitable outlets on all floors so that they may be made available at any location in the store. Adequate lighting must be provided wherever television cameras are used. The mercury vapor flood lamps provide a high level of illumination without heat.

It is impossible today to estimate post-war prices for industrial television equipment because of uncertain labor and material conditions. So the figures given below are based on pre-war prices for similar equipment. As an example, consider a typical industrial television system installed in a five-story department store. Two camera outlets and one microphone outlet are made available on each floor. Four display projectors are also available on each floor. A small control room housing the control and monitoring console and associated apparatus is built in a convenient location on one floor. The equipment required for such a system is outlined below.

Two camera channels, including camera, amplifiers, camera dolly, plugs and cable, camera sweep generator, video amplifier, monitor console, shading and camera control equipment, distribution and mixing panel at \$14,850 each..... \$29,700.00
 One pulse generator..... 4,500.00

One audio equipment, including microphone, portable pre-amplifier, audio amplifier, control and monitor equipment 2,500.00
 One 16-mm motion picture film projector and film pickup camera, including amplifiers and camera tube..... 8,200.00
 Twenty display projectors (18 by 24-inch picture) 7,000.00
 Ten camera outlets 100.00
 Five hundred feet — camera cable 750.00
 Two thousand feet of receiver cable 400.00
 Twenty receiver plugs..... 20.00
 Four portable mercury vapor flood lamps 2,000.00
 Total approximate pre-war price \$55,000.00

To the above figure must be added the cost of installation.

A system such as that described above will allow a department store to produce and televise its own programs throughout its store and also to originate programs for local television stations. It is a complete and flexible system to which additional display projectors or camera channels can be added without modification of the original apparatus.

TELEVISION CHAOS AVOIDED!

(Continued from page 52)

quality that will provide for millions a service of entertainment, education and information unequalled in history is the dominating factor behind the television broadcasters today.

Dedicating itself to the task of launching television on a nationwide scale is the Television Broadcasters Association, whose membership today and in the future will represent the foremost proponents of television enterprise in the country, came into being last January. Birth of the organization in itself has become one of the most significant developments in television this year. It's very existence presages the emergence of the video art as a great American industry.

Organizations whose scientific experts have labored ceaselessly during the past

decade to perfect a form of television that makes possible the establishment of an entirely new industry on the American scene—an industry that gives promise of providing jobs for countless thousands and will, in many respects, insure post-war prosperity—are now banded together for one great purpose: to open the doorways of the magic of television to every family in America.

Since the Association came into being, the tempo of television has stepped up considerably. Although wartime restrictions on material prevent construction of new television stations at the present, plans for their erection are being carefully drawn. When victory comes and the clouds of war are dissipated, all the elements that will help forge a mighty new industry will be directed at one objective—to bring the marvel of television to every state in the nation in the shortest possible time.

As this article went to press nine television stations were operating in the country with 77 applications pending for construction permits. That the number of applications will increase materially before the end of the year seems almost a foregone conclusion, with interest in this new art growing by leaps and bounds among the nation's foremost radio broadcasters.

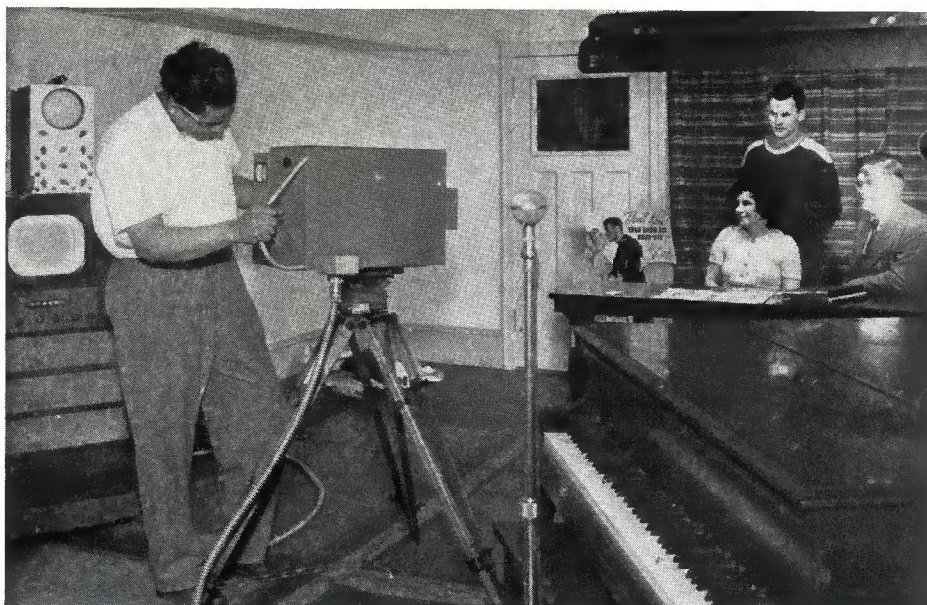
Since 1939, when electronic television made its bow in metropolitan New York, the public has shown tremendous interest in the art. With nation-wide television coverage now assured either by radio relay or coaxial cable webs, millions who have heard of television, but have never seen electron-coated images dance across a television screen, are eager to purchase receivers for their homes.

James Lawrence Fly, Chairman of the Federal Communications Commission, told viewers in four states a few months ago, when he appeared on a three-station television network program, that he continues to "marvel at the progress of science and the skill of American engineers who make possible the presentation" of television programs in homes. And he believes, as other American leaders do, that nationwide television is soon at hand. Mr. Fly considered the three-station hookup the "forerunner of a permanent and indeed better nationwide television service to which we all may look forward."

Bill Still in the Studio of His Station W2XJT, Jamaica.

MEET BILL STILL!

By A. W. BERNSOHN



IT WOULD look like just another radio repair shop, this little store in Jamaica, L. I., were it not for the television demonstrations shown in its window every night. And Jamaica Radio & Television Service might be such a shop were it not operated by the owner of one of the most fertile inventive minds in television, William B. Still.

Bill Still's the John-Henry-size Negro who:

Shattered one of the major obstacles to the creation of small, private television operations with his announcement and substantial proof that transmitters could be constructed for less than \$20,000, about a tenth of the price quoted by major manufacturers;

Sidestepped the need for costly film-televising equipment by creating a gadget which permits television to transmit 24 frames per second (the number at which movie cameras most commonly operate), instead of the customary 30, when motion pictures are being shown via television;

Aided metropolitan police with automobile television receivers which permit patrol cars to receive instantaneous pictures of missing persons, criminals sought and other visual aids for police work;

Invented a simplified home television receiver which can reduce cost between a fifth and a third, a portable television receiver and numerous other equally significant contributions to the advancement of television.

And Bill Still is only 30 years old!

Last August, the FCC issued a permit to the electronic engineer for television transmitter W2XJT on Channel 13. Construction is already well under way. This culminated a technical ascent which began by nearly wrecking Still's high school education.

Bill's father, the famed composer, William Grant Still, had brought the family up to Brooklyn from Danville, Ky., where Bill was born. Bill, a student at Brooklyn Technical High School, was so busy experimenting with his own home-built receivers and making sets for his friends that his course through high school was distinctly precarious. After a short period at C. C. N. Y., he worked a while on his own, for Marine Radio Corp., Collins Radio Corp., the Rexall Radio Stores in Brooklyn and went into his own business. First a small shop in Brooklyn, then a larger one with a recording studio in Jamaica started this phase of his career. He was going great in the tailor-made recording business, with Xavier Cugat's arranger, Clarence Williams, Fats Waller, Jimmy Johnson and other great musicians as regular customers. Then the television virus infected him.

He made custom-built receivers. Among his customers for these were many of our leading television manufacturing corporations. Still was the first experimenter to

send a television signal out on the amateur air channel. In the first buying wave a few years back when television made its false start, Still's technical selling approach, based on a jeep set so that people watching the store window could see friends inside being televised, sold more receivers than all the larger stores in Jamaica together.

When war came, Bill Still put his knowledge of electronics to work filling contracts for making ship-to-shore radio telephones, electronic devices for measuring the speed of projectiles, electronic laboratory equipment, the primary design for the Navy walkie-talkie and filling continuous sub-contracts on war orders of Dictograph Products Corp.

When his contractual obligations were fulfilled, Still left the large factory he had occupied as a war plant operator and accepted a post with Dictograph as head of its electronics research department. He enjoyed the work, doing such jobs as designing a postwar carrier telephone system which will let you plug a telephone into any light plug for intercommunication throughout the building's electrical system. But, after three months of separation from his beloved television, Still resigned to return to his little shop in Jamaica and to his television experimentation.

Studio Tour I: WABD-DuMont

By A. ELIZABETH BROWNING

IN THE embryonic stage of any industry there are always the small pioneer groups—those enthusiastic and far-seeing champions of a new cause—about whom legends spring up in the later years of its development.

For television, the DuMont station, WABD, in New York City has been just such a pioneer; and now that television has arrived, DuMont is ready, with a brand new studio and an accumulation of "know how" derived from constant program experimentation, to step forth as a leader in post-war television.

Actually, the DuMont station is only one branch of the television department of the Allen B. DuMont Laboratories, Inc., which has its main offices in Passaic, New Jersey. Started seven years ago as an experimental station for testing equipment produced by the company, it commenced broadcasting on a regular schedule in the fall of 1941. Putting on programs for purely experimental purposes led to an increased interest in programming itself. The result was that since the spring of 1944, when it was granted a commercial license and the call numbers were changed from W2XWV to WABD, the DuMont Television station has taken the lead in encouraging the development of program techniques by advertising agencies and independent producers.

The operational relationship between the station and the laboratories is very close. Not only does the studio continue to serve as a testing ground for DuMont equipment, but the station's entire technical staff is made up of men engaged during the daytime in essential war work in the Passaic plant. They commute every night to New York to serve as cameramen and engineers for WABD. This has been an important factor in keeping the station running during the war, and also explains why all studio rehearsals are held at night.

Station manager is wiry, soft-spoken Sam Cuff, who came over to DuMont

as a news commentator from NBC when that studio discontinued its live programs in 1942. He continues to present weekly news commentaries on WABD, and, in addition to his full day-time job managing the office, finds time to be present during most evening rehearsals and telecasts.

In 1941 television was "wrapped up" and put on the shelf for the duration of the war. Production of new television receivers and studio equipment was halted; the personnel needed to run a station either entered the Armed Forces or had taken up essential war work. But DuMont disagreed with the negative approach adopted by other stations. After all, although the manufacture of improved equipment and the distribution of new sets was forcibly halted, gargantuan strides were being made in electronic research and the design of post-war sets. After the firing stops, the blueprints of new transmitters, cameras, and receivers will rapidly become a reality hardly dreamed of three years ago. It was felt that it would be a great disappointment to the public and a slap in the face of the television industry if post-war programming standards were still those of the early experimental days. As a result, the advertising agencies were invited to come in, put on shows, learn the techniques of good television production, so that after the war they will be ready to meet the requirements of a critical audience. Unlike most stations, both rehearsal and broadcast time are supplied free for these commercial telecasts, and the response has been gratifying. Included in the long list of advertisers who have sponsored shows on WABD during the last twelve months are: Dobbs Hats, Harper's Bazaar, Saks Fifth Ave., Lillie Dache, I. J. Fox, Rival Dog Food, Post Tams—Kellogg Products, Alden's Chicago Mail Order House, Boots Aircraft Nut Co., Tintex, Coty, Helena Rubenstein, Chesterfield cigarettes, Stardust Under Garments, Lever Brothers, Durez Plastics, and dozens of others.

As Sam Cuff says, "We are interested in helping anybody who is really serious about getting into television."

The question has been raised as to when WABD will start charging for commercial time. The answer is, "as soon as it will be profitable to producers and agencies to pay for it."

Station WABD rambles over the 2nd, 39th and 42nd floors of the building at 515 Madison Ave. Until very recently the focal point of its operation was the 42nd floor, where, crowded into an area of 900 square feet, was the complete broadcasting unit: studio, production booth, film room, monitor room, transmitter room, workshop, make-up room and the viewing room for visitors.

All of this equipment is still in use, although a larger studio has since been constructed on the 2nd floor. The 42nd-floor studio, enlarged from an original 300 square feet to 500 square feet, is one of the smallest studios in use. This factor has been important in keeping the station operating during wartime, since only a minimum staff is required and the cost of production is kept at low level. A surprisingly large variety of production techniques is possible, however, and in some cases it has been found even more convenient to operate within such a small space than it would be in a larger studio. The equipment here is all of a pre-war vintage and, to the nontechnical observer, looks like a complicated creation by Rube Goldberg. It is quite *un*-streamlined, and it occasionally breaks down, whereupon the ingenious young technicians calmly start fiddling around with the nuts, bolts, tubes, wiring and what-not that go to make up the intricate mechanism, and have it in working order almost instantly.

During a rehearsal or just before a performance, the tiny studio is the last word in confusion—littered with cameras, microphone boom, props for several scenes, cables strung across the floor, shouting directors and technicians, performers loudly rehearsing their acts

in addition to a few fascinated spectators who get pushed around from one corner to another. Since television requires intense lighting of its subjects, the ceiling of the studio is covered with movable lighting units, which bring the temperature of the room to a warm 120 degrees. One subject that WABD can't televise is someone eating a delicious dish of nice, cool ice cream! What they actually "shoot" is an actor "enjoying" a dish of un-meltable mashed potatoes!

WABD is unusually hospitable to interested visitors and there is a constant stream of them from all over the country. Should you have happened to phone Miss Shean at the station for a pass to one of their evening entertainments a month or so ago, you probably would have been ushered to one of the two viewing rooms on the 39th and 42nd floors. You would have witnessed at first hand the general interest in television by the presence there of a great many agency men, advertisers and hopeful talent clogging the narrow corridors between the elevators and the viewing rooms. You would have finally wormed yourself into a seat in a small room with a television receiver set in one corner. If you had never seen a television show before, you would have been impressed at first by the moving, talking image before you; then soon you'd notice how small it seemed, how many defects kept marring the quality of the picture itself. Someone might have explained to you that, technically, television is far more advanced than the sample you were viewing; that larger images of greater clarity will be ready immediately after the war. Pretty soon your interest would increase as you sensed the tremendous possibilities of this new medium. You would probably find that you had caught the bug, like the other viewers and like all those actors sweating it out in the hot studio or the technicians mothering along the hard-pressed equipment. And you would have left the studio determined to do something about television.

If you go over to WABD now, you will find considerably larger facilities on the second floor, where the new studio was

opened Sept. 13th. Everything is more streamlined here. The production booth is raised above the studio floor for better vision; the control desk is more compact and efficient; the walls of the studio itself are sound-proofed with a special treatment which prevents the room from being too dead. The floor space is much larger than that of the 42nd floor studio. Here it covers an area of 900 square feet, and plans have been made to increase this by another 600 square feet in the near future to accommodate a "live" studio audience. There is a spacious viewing room on this floor with a larger television receiver at one end. In addition, special patrons' viewing rooms have

been constructed, along with more adequate make-up and property space.

Additional plans have been made for a huge studio to be built in the heart of Manhattan, capable of putting on any type of television show at the least possible expense. However, actual construction will not commence until it is known more definitely what the requirements of the advertising agencies and producers will be.

WABD is growing up, but the pioneer spirit that has motivated its policies and activities for the past seven years is still present. Triumphantly now it seems to say "Not only has television arrived, but television is going places!"

Network Fashion Reviews

(Continued from page 45)

tising might very well be pro-rated among all the stores participating, or absorbed by the manufacturers sponsoring the broadcast.

So much for paid advertising and coordinated displays. Concurrently, news stories together with "stills" from the forthcoming production are released to the local papers. Blow-ups of these "stills" and lithographs are displayed in selected spots throughout the city and in store elevators and windows.

Where feasible, a star or stars of the scheduled broadcast is invited to be present at the showing and the fact is publicized. This innovation will invariably insure a larger attendance at the stores' auditoriums and immeasurably more colorful follow-up publicity after the showing.

Local movie critics and fashion and radio editors are, of course, guests of the stores and are bound to mention the event in their next day's columns.

Naturally, each store will publicize the event in its own way and those with the most ingenious publicist will garner the largest store audiences. But as I pointed out before, whether you have standing room only or only a fair audience at the store showing, your advertising and publicity has hit its mark; the minds of the

city's women have been focused on furs and this impact will result in greater fur sales.

It may be found impractical to engineer a cooperative promotion such as I have sought to predict. If this proves true, then the exclusive type of televised production, in which only the products being merchandised by a single store, in each city, are dramatized, will greatly complicate and increase the cost of the promotional project. I do not, however, anticipate any objections to the cooperative, because it is no more competitive than the existing film distribution plan, which enables the public to see the same movie at anyone of a number of local theatres on the same days; the public makes its choice of theatre as it does of stores and none of the theatres seems to suffer for want of audiences or customers.

No matter how television with color, sound and plot is adapted to merchandise exploitation, one thing is certain. When it comes, the drab commercialism attached to dry goods stores will vanish in a puff of smoke and the magic spirit of the entertainment world will enter and invest department stores with some of the shimmering glamour which today attaches only to the theatres of Broadway and the studios of Hollywood.

Television Station Management

(Continued from page 48)

for each camera in the studio control room and then a third showing the picture which is on the air. Cameramen, light-men, microphones and studio directors and assistants all wear earphones. The director sitting in the studio control room can see his studio and he can talk to every single person in the studio except the actors without being heard on the air. He thus previews his shot, tells camera 1 exactly what he wants, and when camera 1 has it to his complete satisfaction he puts it on the air. In the meantime camera 2 which has been on the air previously is ordered to change position, focus on anything else, and then 2 goes on the air and 1 makes still further changes. The system, though it sounds complicated, in reality is relatively simple to operate and it is fool-proof in the sense that every picture is seen before it is aired. No picture can go on the air without the directors say-so.

Sitting one side of the director is an engineer who shades the pictures as they come up for proper light contrast. Sitting on the other side is a technical production assistant who pushes buttons putting cameras on and off the air at the directors command. Still further away is a sound man with turntables who superimposes off stage sound effects and music, if and when the director wants them. The director is likewise in constant interphone communication contact with a projectionist in the film studio. A studio scene can be dissolved from camera to camera or it can be flashed from camera to camera at the directors discretion. Likewise, the studio scenes can be faded into and out of film sequences.

An illustration of this technique was a program known as "Television Roof." Studio cameras picked up a couple sitting in the living room listening to a radio program. The radio program ends—the wife says to the husband "let's go to a night club"—where to—Television Roof—the husband gets up, turns off the radio, the wife puts on her wrap and the two of them exit on a fade. The film sequence dissolves into a couple entering a taxi

cab. The cab pulls away from the curb and drives through city streets at night time. It pulls up to a curb, and the couple emerges. Studio cameras pick up a marquis of a building, dolly into an elevator with the door closing, dollies back and slowly pans up the face of a sky-scraper. At this point film camera dissolves into a regular juke box type film of a band in a night-club. After about thirty-five or forty seconds there is another dissolve back to the studio where an M.C. thanks the orchestra and goes into his routine of introducing entertainers.

In a program of this sort which is interspersed with short films of dance bands coming back constantly from live studio to film studio, the audience is never aware of a change from one to the other. Just like on a transcribed radio program, the announcer at the end says "orchestra and taxi cab sequences were film presentations." But apart from this, the audience has never been aware of this fact. We have had guests in viewing rooms at WABD who after the program have wanted to know if it was possible to get the orchestra leader's autograph. And when told that the orchestra leader had been present on film, have insisted indignantly that they were being given the brush off.

It has been said that the technique of television programming more closely resembles that of motion picture production than of radio programs. This is only partly true since there is undoubtedly a great similarity between the two. The big difference however is that, whereas in motion pictures many scenes wind up on the room floor—in television there is no cutting room floor. The actor can't make a mistake and feel that after all the public won't see it. Television is instantaneous and everything the camera takes goes on the air. The "fluff" of a line, the embarrassed expression are seen and heard, and as a result of this it has been found that those shows built around more informality, where errors can be covered or are less noticeable, make for better television entertainment.

Equipping a Station

(Continued from page 52)

Master Control Board\$35,000.

The cost of the transmitter depends upon the power desired. At the start, a station could install a 5 KW video and 2.5 KW audio transmitter. As more power is required, additional stages could be added (with the approval of the F.C.C.) with minor changes to the basic system, to incorporate the greater power.

5 KW video 2.5 KW audio transmitter with the control console\$36,000.

There we have the entire equipment purchase picture for starting a telecasting station. The total for this basic equipment, which provides for expansion, would be \$113,000, or less, if a single camera is to be used. This is far remote from previous conceptions that equipment for a station would run into hundreds of thousands of dollars.

For expansion of your station to provide complete telecasting service, a remote or field pickup unit could be added at a later date. This equipment would include:

2 Field Pickup Cameras with associated control equipment	\$24,000.
Sound equipment	1,500.
Field Relay Transmitter.....	8,000.
Relay Receiver	2,000.
Truck with generator and antenna	5,000.
	<hr/>
	\$40,500.

As prosperity warrants additional cameras, projectors, pickup cameras, remote units, transmitter power stages can be purchased. These do not have to be purchased immediately to provide the type of service expected by the public.

Television is a new industry which will prosper if entered into sensibly, with careful planning, consideration given to the type of station the service area can support. Plan your station now, while speed is not important, but plan it modestly with provisions for expansion at a later date. You will find many capable organizations with invaluable experience waiting to assist you in every possible way.

4: REVIEWS, NEWS AND VIEWS

Edited by A. ELIZABETH BROWNING

BOOKS:

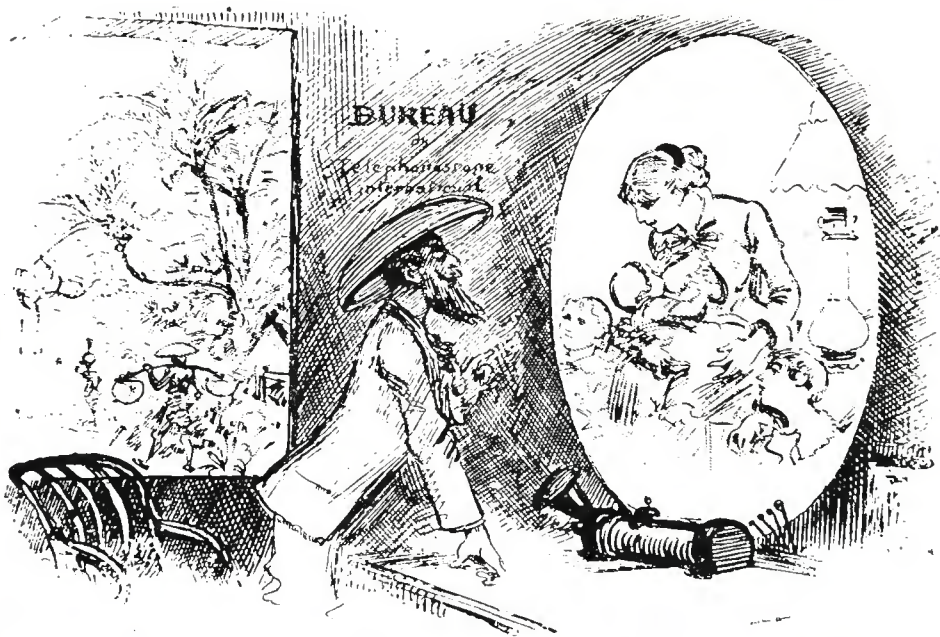
TELEVISION: THE REVOLUTION, by Robert E. Lee, *Essential Books*, New York, 1944.

A cleverly conceived plan for the present and future of television is laid out for us in considerable detail. It includes everything from how television is to be financed, to what its programs will be like, to problems of wage scales and employer-employee relations within the industry. The plan is very pat, and generally plausible,—at least to a non-expert. But there are occasional contradictory details which puzzle even the "lay" reader, and it is likely that some television experts would make strenuous objections to some of the points made by the author.

According to Mr. Lee, television programming will be handled through films almost entirely. "Live" shows on an adequate scale, he claims, will be impossible financially, and, for some time to come, technically. The chief obstacle is the tremendous expense of constructing a coast to coast co-axial cable tie-up between broadcasting stations, thereby making a "film net-work" a necessary substitute. But it *will* be possible for the motion picture theatre chains to build their own private coast to coast co-axial net-work for the purpose of carrying "Live" telecasts of news and special events into the nation's theatres, where the public will pay for such services at the box office. This prospect may seem a little frightening to those who foresee television as the greatest medium of democratic mass communication by virtue of its very ability to reach the public at home.

Through his system the author neatly pays for all the bills in television, including those of an Association for the Advancement of Television, comprised of representatives from all parts of the industry and financed by a subscription plan to which all set owners would be obliged to subscribe. *But*, as a means of financing television program itself, Mr. Lee rules out such a subscription plan on the to have his television service, like radio, thesis that the average American expects free!

TELEVISER



An Empire Builder in the Jungles of Africa Tunes In on a Domestic Scene via Television as Conceived by an Unknown French Artist in the 80's.

However, the author seems to have the public interest at heart in the matter of program content. He offers some very interesting suggestions on all types of shows and makes a strong appeal for the restrained use of the commercial. There is "no place for the cheap little advertisers with cheap little minds," he writes. Spot announcements must be left out. But commercials can be extremely effective so long as, in addition to selling goods, they either inform the public or provide genuine entertainment of themselves.

The reader is taken on a fascinating tour of a post-war television studio, and of a special production unit for feeding hourly newscasts over the theatre network to the movie houses of the country.

Mr. Lee ends his book with a plea to all interests—broadcasters, filmmen, exhibitors—for cooperation in wise and planned exploitation of the gigantic new industry, and assures us that everything should work out for the best if such a plan as his is followed. While the book is interesting and informative throughout, it is felt that a more objective presentation can be offered. However, Mr. Lee's is provocative, at least, and at this stage of the game, there is no harm in that.

MAGAZINES:

IN THREE RECENT articles in *Advertising and Selling*, John Southwell offers some of the most realistic, hard-hitting and constructive advice to prospective television producers that has yet appeared in print. He even has a few words for the writers, the station managers and the advertisers themselves. And it all hinges on the basic themes: "Learn the medium. . . . Learn the facts. . . . Forget about other media and go into it with studied amnesia about how you used to do things in radio, space or motion pictures . . . beware of preconceived ideas, consciously or unconsciously. . . . The time is now!"

"Don't let television fool you" says Mr. Southwell. It's no cinch; it's not just a radio show that can be seen; it is an entirely new medium and must be treated as such. It is most like the motion picture in that it gives the audience everything—"There is relatively nothing to be imagined." On the other hand, unlike the movies, it is extemporaneous—no cutting, editing and re-taking—which makes the rehearsal very important to television.

A list of good, solid "Do's and Don'ts" is offered for the agency man who starts out to create and produce a television show; and it is suggested, in particular, that he study the movies, see the same film over and over again, and see a lot of them that way, to study the techniques used there in "cuts, dissolves, wipes, close-ups, dolly-in, dolly-out, two shot, montages, etc."

In discussing commercials via television, the author concedes that the new medium can be the greatest selling medium of all time—can be nine times more effective than radio and several times more effective than space, *but*—"it's just like any other selling medium when it comes to using it; it has to be used correctly to make it effective." Several impressive examples are given to prove its tremendous selling powers—recommended reading matter for the prospective advertiser.

In this most recent piece, "What to Do About Television Now," Mr. Southwell outlines the immediate steps that should be taken if you are an advertiser, an agency, a radio station, or a writer or producer—and stressed the fact that, whatever you are . . . "The time is now." He supports the theory that experimentation in programming now is important, for "television is not a development or radio or a refinement of the movies or an outgrowth of the stage, but . . . it is just *television*, pure and simple . . . a brand new business and a brand new medium that will go its own way and the devil take the hindmost."

"If television means anything to you . . . if you are counting on it to make money, to further your career, or to sell your products, don't be taken in by any rumors that television is not ready yet . . . It is neither remote nor 'just around the corner'—it is already here." That's what we like to hear, Mr. Southwell! Let's have more of the same!

THE PROMISE OF TELEVISION, by Robert Conly—*The American Mercury*, July, 1944.

In this rather general article the radio editor of "Newsweek" Magazine, offers a realistic, if occasionally pessimistic, view of the television picture presented from the consumer's point of view. "Television, in the past ten years" he begins, "has received more advance ballyhoo than any other embryonic industry in history. . . . Without entirely discrediting such optimism, it is well to remember that most of the experts who see television's future so near and rosy are in the employ of the industry."

Although it may be to the advantage of the would-be station owner to get in on the ground floor, he continues, there is no hurry for the consumer. "The longer he waits the better his set will be when he does buy it." The technical improvements in television, which are coming fast, will be of great benefit to both the home audience and the performer in the way of brighter and larger images, cheaper and more efficient sets, better cameras and other studio equipment. One of the most pressing technical problems, which the author reviews for the layman, is the assigning of new frequencies for television transmission.

"Television's hardest problem, however, is not technical but financial. It is evident that the sale of receiving sets and transmitters alone will not make television broadcasting a paying business. Someone must be found to foot the bill." As one method of solving this problem, Mr. Conly describes several non-advertising systems advocated by some television and motion interests. Among them are (1) theatre television; (2) some kind of metering device to be attached to television receivers; (3) wired television paid for as wired radio hookups like Muzak are by subscribers." The Scophony Corporation of America, in particular, is thinking along such lines, whereby "by charging a small fee, the broadcaster could easily collect enough to produce

television programs at least as good as anything the movies have to offer."

On the other hand, writes Mr. Conly, "It looks now as if television is going ahead on the same formula as radio as an advertising medium. . . . Early experimentation indicates that it can be an extremely powerful sales force." Both station WNBT of the National Broadcasting Company and the DuMont station have attracted sponsorship from thirteen major advertisers in eleven months of commercial operation, and it is members of the two largest advertising media—radio and newspapers—who either own or have applied with the FCC for the largest share of station licenses. "There is a danger especially felt by newspapers, which have been able to hold out against the inroads of radio advertising chiefly because department stores felt that customers preferred seeing drawings of merchandise to merely hearing it described. *With television, however, stores will display their daily specials—not just pictures but the merchandise itself—in the customer's homes.*"

But such interest shown by advertisers and manufacturers in television, does not mean, according to the author, that its financial problem is solved. "Before program sponsors will invest enough money in television programs to make them really good, they must be assured an audience not of thousands but of millions. On the



The Horrors of War Are Witnessed by the Television Audience.
An Artist's Conception of Television During the 1890's.



Although Bed Stricken, This Person Is Still Able to Watch a Performance of l'Opera Comique, via Large Screen Television. From a French Periodical of 1886.

the country is provided showing existing A. T. & T. cable and wire routes, existing television co-axial cable routes, and the proposed co-axial routes; and a time table is given which estimates completion of a complete trans-continental route by 1950. At the end of the pamphlet an instructive chronology is given of television's development from 1817, when Baron Jons Jacob Berzelius discovered selenium, to the present day.

TELEVISION AT WRGB — General Electric Company, 1944.

Full of interesting photographs, this booklet describes the history and goings-on at Station WRGB, Schenectady. Preparations for the show, and the production itself, are described and illustrated. The way the picture travels from studio, via camera, control desk, transmitter to the receiver, is also described in simple, un-technical terms, as is the principle of the television relay system. G-E's part in the development of television is given along with some of the bright prospects of the future.

THE STORY OF ELECTRONIC TELEVISION — Farnsworth Television & Radio Corporation, 1944.

This very attractive booklet, illustrated with many colorful charts, pleasing sketches, and actual photographs of television in action, explains perhaps most clearly of all, exactly how the television picture is made and transmitted. The principles of image dissection, scanning, electron multiplication, the components of the camera, the various tubes, the receiver—are all described with a degree of clarity and authenticity that will appeal to the average layman. A section is devoted to the future of the medium in industry, commerce and education. Finally, an interesting recapitulation of television's development is given, in addition to Farnsworth's contribution to the field and a display of Farnsworth products.

"Television," *Life Magazine*, Sept. 4, 1944.

"Life" introduces television to the layman. Touching on the technical and production high spots, it first of all analyzes how television works by presenting an interesting array of simplified diagrams, photographs of camera and receiver tubes, and illustrative photographs showing such principles as scanning, electron multiplication, the Schmidt projection system. After describing the present status of picture quality and the CBS campaign for advancing television channels to the upper frequencies, two pages of production shots are offered, including some good interiors of WRGB, Schenectady.

BROCHURES:

TELEVISION: PROGRESS & PROMISE — Radio Corporation of America, 1944.

This is the story of the recent development of television and RCA's role in it, attractively illustrated with imaginative sketches. We are told what can be expected after the war—high quality pictures for home owners, the types of telecasts which will be used, the role of theatre television, color television, industrial uses of the medium, cost of receivers, etc. Of particular interest is the description of a national television network by radio relay and co-axial cable. A map of

PLANNING YOUR TELEVISION STATION—Allen B. DuMont Laboratories, Inc., 1944.

DuMont presents a break-down of the equipment needed to run a post-war television station, and makes suggestions as to how a small station can start with a minimum amount of equipment and build gradually to the point where full operation is possible. DuMont television equipment is illustrated and described in detail, piece by piece, along with the cost of each item.

other hand before millions will spend \$200 for a television receiver, they must be assured of good programs." Current programming is extremely limited in quality and the programs of the future, in order to compare favorably with motion pictures, must run to prohibitive expense. This is a point on which many television producers will differ with Mr. Conly. However, he does concede that—"as television grows it will evolve new studio program material of its own, as radio evolved the soap opera and the quiz show." And nearly all will agree with that!

A combined note of hope and caution winds up these comments—"The full significance of television, after commercial exploitation has brought it into wide use and near to technical perfection, is not yet clearly apparent. Once it has become a means of mass entertainment, it will automatically become also a system for mass education, culture, and travel—and for mass propaganda and deception as well. It may well turn out to be a more useful tool and a more powerful weapon than radio, press, and cinema combined. Like all great technical advances, its value will not be inherent in itself, but will depend on the wisdom with which it is used."

Who's Who in the Video World

This Issue: The Pioneers, Inventors, Engineers

WALTER RANSOM GAIL BAKER

LONG associated with the General Electric Company and its advancement of television, Dr. Baker was born November 30, 1892 in Lockport, New York, and studied engineering at Union College from which he graduated in 1916 and subsequently received several scientific degrees. Commencing as electrical engineer for G-E in 1916, he worked his way up through the organization to become vice-president and head of the Electronics Department of that company. As a tribute to his contributions to television, the G-E Television Station, WRGB, was given his initials. He serves as Director of the National Electrical Manufacturers' Association; Chairman of the Radio Technical Planning Board; fellow of IRE; member of the National Television Systems Committee and other scientific groups.

ALLEN B. DuMONT

BY commercializing the cathode-ray tube, hitherto a laboratory curiosity, Allen B. DuMont laid the foundation for everyday television. As engineer, he made commonplace this electronic indicator for many scientific and industrial purposes; as inventor, among other contributions, he suggested a practical radar system a dozen years ago; as industrialist, he is responsible for a tremendous output of cathode-ray tubes, oscillographs, radar and radio equipment; as telecaster, he has pioneered with Station WABD-New York, is ready to install other stations later, and offers transmitting equipment, television receivers, trained personnel and rare experience for the post-war television era. Allen Balcon DuMont was born in Brooklyn, N. Y., January 29th, 1901. An early wireless amateur, he owned and operated W2AYR; later went to sea as commercial radio operator. Deciding that a technical career required thorough basic training, he attended Rensselaer Polytechnic Institute at Troy, N. Y., receiving the degree of Electrical Engineer in 1924. After graduation, he joined the Westinghouse Lamp Company, where he was awarded in 1927 the coveted Westinghouse First Award for the most outstand-

ing accomplishment among employees. In 1928 he went to De Forest Radio Company, first as Chief Engineer and later as Vice-President in charge of all engineering development work and manufacturing. In addition to building, from scratch, the large plant for production of tubes and transmitting equipment, he was responsible for the company's television activities, including the early sight-sound programs of DeForest television station W2XCD at Passaic. Intrigued by the potentialities of the cathode-ray tube, he embarked on its commercialization in June 1931, starting first in the basement of his Upper Montclair, N. J., home. The Allen B. DuMont Laboratories, Inc., grew rapidly. Today, in its own Passaic plant, and with a personnel upwards of a thousand workers, the company operates four production plants, several experimental and model shops, and laboratories. Dr. DuMont—the honorary degree of Doctor of Engineering was conferred upon him this year by his alma mater, R.P.I.—is President of the Television Broadcasters Association and a member of many engineering and scientific societies. He is author of several articles and papers on electronics and television.

ALFRED N. GOLDSMITH

ONE of the best-informed authorities on all aspects of television—technical, programming and economic—Dr. Goldsmith is currently serving as consulting engineer and as a member of Panel 6, Radio Technical Planning Board which is concerned with television problems. Born in New York City on September 15, 1887, he was graduated from the College of the City of New York in 1907 and received the degree of Doctor of Philosophy from Columbia University in 1911 plus an honorary Doctorate of Science from Lawrence College in 1935. His many professional affiliations have included positions as professor of electrical engineering at City College; consulting engineer for G.E.; Chairman of the Board of Consulting Engineers at NBC; Director of Research, chief broadcast engineer, vice president and general

engineer of RCA. During this war he has been chairman of the Sub-Committee on Insulating Material Specifications for the Military Services of the WPB, operating under the ASA Secretariat. Because of his vast knowledge of radio and television, Dr. Goldsmith is constantly asked to speak before scientific, programming and executive groups of all kinds. He was awarded the Medal of Honor by the IRE in 1941 and the Townsend Harris Medal in 1942. He is a fellow of IRE (also past president and director), editor of its "Proceedings," past president of the Society of Motion Picture Engineers, and a member of many other scientific groups. His many writings in the television field include "Radio Telephony," "This Thing Called Broadcasting" (with A. C. Lescarbours) and "Television Economics."

O. B. HANSON

ARCHITECT and executive as well as a leading engineer, O. B. Hanson has risen from amateur wireless in the early days of radio to achieve the post of vice-president of NBC, responsible for half a dozen significant inventions and much of the radio equipment in Radio City. Born in Huddersfield, England, he attended primary school in this country, then was sent back to England for eight years of study at the Royal Masonic Institute, Hertfordshire. At that time he planned to become an architect, but because of his father's untimely death and resultant family financial reverses, he returned to America and went to work in the Underwood typewriter factory in Hartford, Conn. At the same time he studied engineering at Hillyer Institute's night school and pursued his interest in amateur wireless. In 1917 he took a job with Marconi; in 1921, imbued with the possibilities of broadcasting, he became associated with Station WAAM, Newark, and produced programs which brought him to the attention of WEAf who offered him a job as plant manager. Later he was named Chief Engineer of NBC, and in 1938, vice-president. A man of great versatility, his activities have included much of the de-

signing of Radio City, New York, and of NBC's Hollywood studios. Hanson is a fellow of IRE and the Acoustical Institute of Electrical Engineers, Society of Motion Picture Engineers, Television Broadcasters Association and FM Broadcasters, Inc. Since the war he has contributed his time and knowledge to the Radio Technical Planning Board and the Office for Emergency Management.

VLADIMIR K. ZWORYKIN

BORN in Russia on July 30, 1889, he studied in the Petrograd Institute of Technology and the College of France, in Paris, before coming to this country in 1919. Penniless, but full of enthusiasm and ideas about television, he finally succeeded in landing a job in the Research Laboratories of Westinghouse Electric and Manufacturing Company in Pittsburgh. While there he continued his technical studies at the University of Pittsburgh and received the degree of Doctor of Philosophy. In 1929 Dr. Zworykin joined the RCA Manufacturing Company in Camden, New Jersey and in 1942 was promoted to his present post as Associate Research Director. Outstanding among his many contributions to television are the iconoscope and kinescope, the basic elements of the television camera and receiver. In 1934 he was awarded the prized Morris Liebmann Memorial for his notable work in television. He is a fellow of IRE, the American Institute of Electrical Engineering, American Physical Society, American Association for the Advancement of Science and other organizations.

Schedule for Installation of Network Co-Axial Cable

- 1945—New York-Washington
- 1946—New York-Boston; Washington-Charlotte; Chicago-Terre Haute-St. Louis; Los Angeles-Phoenix
- 1947—Chicago - Toledo-Cleveland-Buffalo; part of the Southern Transcontinental Route including Charlotte; Columbia-Atlanta-Birmingham-Jackson-Dallas-El Paso-Phoenix
- 1948-'50—Completion of the Southern Transcontinental Route; Washington-Pittsburgh-Cleveland; St. Louis - Memphis - New Orleans; Kansas City - Omaha; Atlanta-Jacksonville-Miami; Los Angeles-San Francisco.

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- Large Screen Television
- Television as an Advertising Medium
- Radio vs. Television
- Televising Light Opera
- New Buying Habits A-coming!
- Television Programme Testing
- Televising Fashions
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- Television Production Problems
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- How to Plan a Television Station, etc.

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Please Enter My One Year Subscription at the rate of \$4.00 per Year.

NAME TITLE

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AN APPROACH TOWARD BETTER PROGRAMMING.....

ALTHOUGH broadcast television is still in the "hands-and-knees" stage of development, the present interim period should witness the development of intelligent programming and production policies by each of the licensed broadcasters and by every prospective user of television, including advertising agencies and department stores.

The perfection of programming should keep pace with the perfection of television in the laboratories. Unfortunately, this has not been the case in the United States.

For want of sponsors with sufficient production budgets and farsight, television programming has been allowed to develop the best it could . . . which has been none too good.

Even before the war's end, when television broadcasting sheds its mantle of immaturity, it should be incumbent upon all associated with television program production, or who are planning to work in television in the postwar period, to begin to learn the fundamentals of good programming.

Judging from current television offerings, program producers in general still have little conception of what constitutes truly good television entertainment. There appears to be:

- 1) An apparent lack of understanding of the television audience (which differs widely in listening and viewing habits from radio, stage and motion pictures).
- 2) Poor evaluation of the entertainment possibilities of a given script or idea.
- 3) Failure to make fullest and proper use of visual effects, sound effects, background music, trick openings, props, costumes, etc.
- 4) Lack of program pace.
- 5) Failure to coach players in television camera technique.
- 6) Failure to use professional talent—actors, writers, directors, set designers, etc.
- 7) Failure to use videogenic personalities, personalities who register well on television.
- 8) Failure to rehearse a show properly.

In a number of instances some of the worst shows were produced by men allegedly conversant with the medium, but whose production kits were utterly devoid of good television techniques.

What's the answer?

Television must—and will—bring to its fold persons with brave, new minds—eager and imaginative minds—minds free from the prejudices of any other medium.

If they come to television from radio, they must be prepared to change their audeo-radio ways and learn to use the camera. It is not simply coincidence that some of television's least successful producers have been radio directors attempting to *adapt* television to radio techniques.

The reason for their failure is not hard to find. Radio is a medium which builds pictures with sound. When you simply add *sight* to sound, the net result is a talky, rambling, static production, hardly worth the attention of the tele-viewer.

On the other hand, the stage director, newly come to television, is certain to forget the narrow limitations of the television stage and have his action spread over a too wide area, with actors moving out of the camera's viewing range or field of focus.

The stage director, who probably comes best equipped for this new medium, must remember to concentrate his action in a small area.

As for the motion picture director, he should approach television without cynicism. Too often motion-picture people view a television show critically, but add nothing to the techniques of television production. They forget that for every foot of film that goes into a finished picture, fifty feet had gone into the cutter's basket.

The first requisite to effective program planning and production is knowing your audience: its likes and dislikes, its listening moods, knowing when and how they listen, the distractions that occur during a telecast, etc. Only a few of the present television stations have an idea who or what their audiences are like. As soon as economically practical, studies of typical audience reactions should be made. Crossley and Hooper surveys would be very helpful. If necessary, the industry—possibly through the Television Broadcasters Association—should finance continuing studies of television audiences.

Secondly, more schools and universities should be encouraged to offer television training courses. The courses offered by Yale, New York University and The New School are steps in the right direction.

Thirdly, more and more agencies should begin experimenting with television. Those who don't will find the postwar road to television expensive and full of pitfalls.

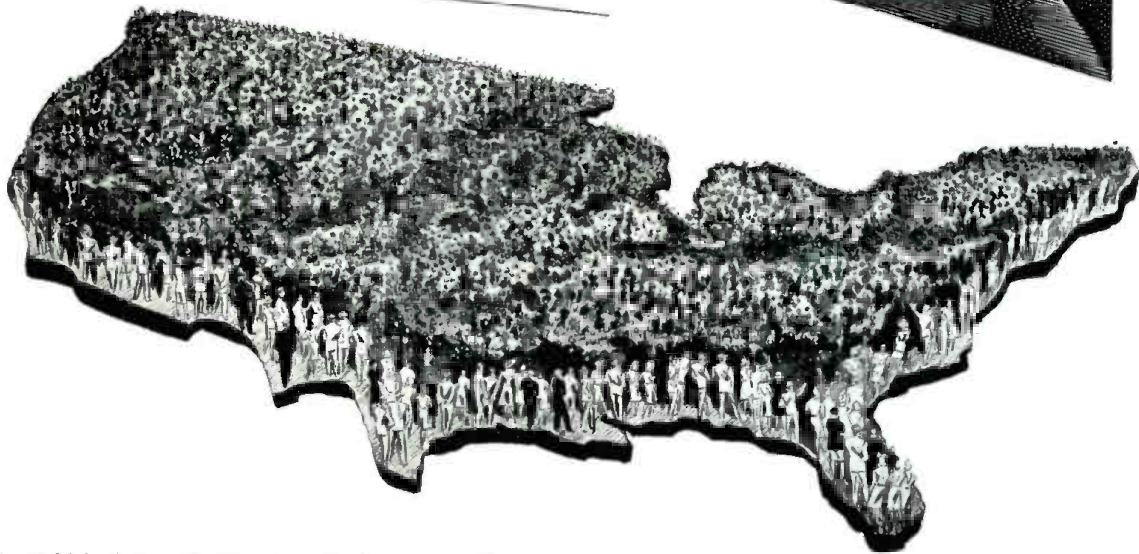
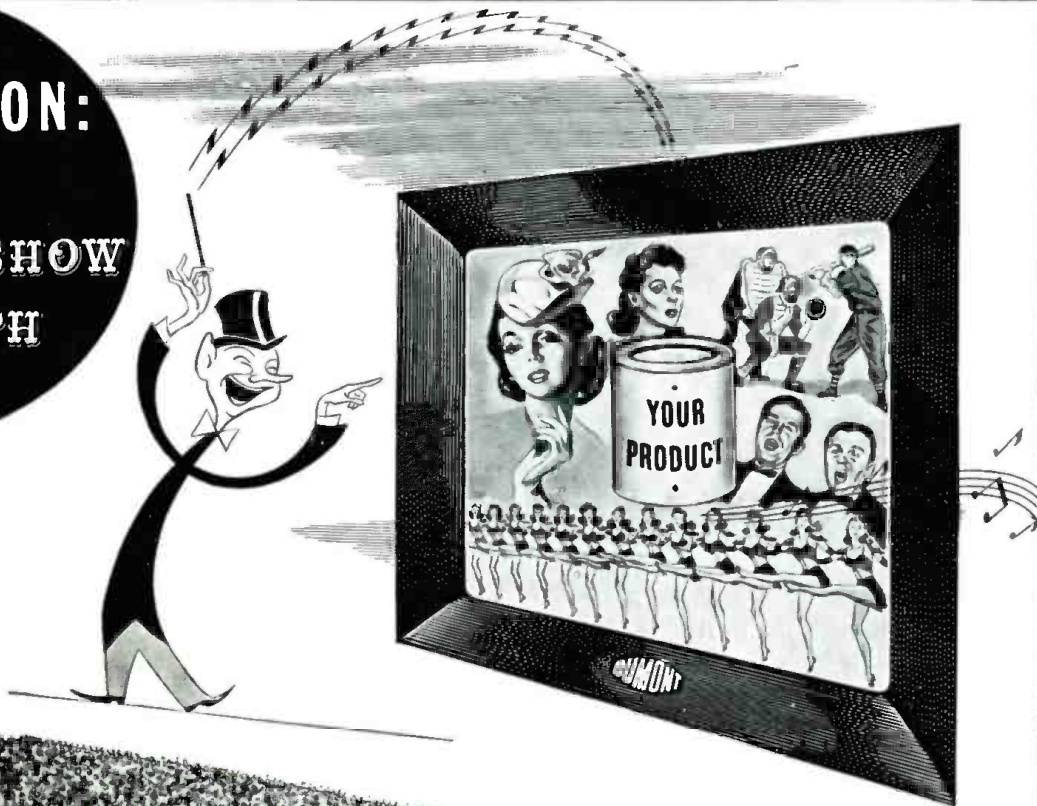
Fourthly, more and more directors, writers and producers should be encouraged to enter television now, to learn the medium while time and facilities are still available.

To further programming and to develop it to a high level, an exchange of program ideas should exist between stations. By cooperative effort, television programming can become a high art, a boon to the budding postwar television industry—rather than a hindrance!

Let program standards be raised everywhere; let there be a uniform system of program evaluation; let creative talent come into television; let the agencies and department stores and other future users of television experiment with the medium and learn how to use it now—rather than later.

Let the stations set up a standard for directors and clients. Let television programming come into its *own*!

**TELEVISION:
THE
GREATEST SHOW
ON EARTH**



Coming! Television: the greatest show on earth! Glamorous musicals and the stage's most brilliant dramas! Boxing and ball games, races and wrestling! Parades, movie premieres and political conventions . . . running bumper to bumper in the most magnificent pageant ever dreamed!

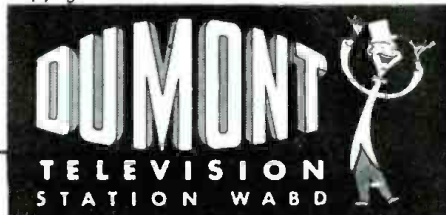
There are sweet sales opportunities for your products and your services in Television's exciting peacetime parade. Today, effective commercial techniques are evolving in experimental programs conducted (for the past 18 months) by DuMont in collaboration with leading advertisers and their

agencies. Sight-plus-sound selling is ready to roll!

DuMont *pioneering* gave television its first really *clear* picture reception. DuMont engineering has lowered telecasting costs to the point where they make economic horse-sense. DuMont *experience* assures you of the maximum value, in peacetime, for every penny of your television time-buying dollar . . . you'll find it profitable to look into television. Get in touch with DuMont today.

DuMont Television Studios and Telecasting Equipment Department of Allen B. DuMont Laboratories, Inc., Station WABD, 515 Madison Ave., New York 22, N. Y. General Offices and Plant, 2 Main Ave., Passaic, N. J.

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TELEVISION

the "Baby" that will start
with the step of a Giant!

America's "Next Great Industry" awaits only
the green light of Victory to open up undreamed-of horizons
in Education...Entertainment...Employment

IT took fifteen to thirty years for the automobile, the airplane and the movies to become really tremendous factors in American life. But television will start with the step of a giant, once Victory has been won and the manufacturers have had an opportunity to tool up for volume production.

Few realize the enormous technical strides television had already made, when the war put a temporary halt to its commercial expansion.

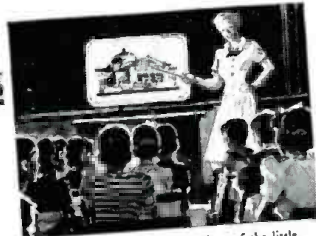
Dr. V. K. Zworykin's famous inventions, the kinescope and kinescope (the television camera "eye" and picture tube for the home), go back to 1923 and 1929 respectively. Signaling arrival of the long-awaited all-electronic system of television, their announcement stimulated countless other scientists in laboratories all over the world to further intensive development and research. By the outbreak of World War II television, though

still a baby in terms of production of home receivers, had already taken giant strides technically.

During the war, with the tremendous speed-up in all American electronic development, man's knowledge of how to solve the production problems associated with intricate electronic devices has naturally taken another great stride ahead.

When peace returns, and with it the opportunity for television to move forward on a major scale, all this pentup knowledge from many sources will converge, opening the way for almost undreamed-of expansion. Then American manufacturers will produce sets within the means of millions, and television will undoubtedly forge ahead as fast as sets and stations can be built.

In a typical example of American enterprise, many of the nation's foremost manufacturers, listed here, have already signified their intention to build fine home receivers.



IN THE TELEVISION AGE, the teachers of the little red schoolhouse will offer their pupils many scholastic advantages of the big city. And in the home an endless variety of entertaining instruction: courses in home-making, hobbies like gardening, photography, wood-working, golf.



WHILE REMAINING AT HOME, the owner of a television set will "tour the world" via television. Eventually, almost the entire American population should share in the variety of entertainment now concentrated only in large cities...drama, musical shows, opera, ballet.



TELEVISION will aid postwar prosperity. Television will give jobs to returning soldiers, and an even greater effect will be felt through advertising goods and services. Millions will be kept busy supplying products that television can demonstrate in millions of homes at one time.

WATCH FOR THESE NAMES AFTER THE WAR

The manufacturers below may well be described as a first band of the radio and electronics industries. Their spirit of invention, research and enterprise built the radio industry over the years and is today

When you contemplate their achievements and fully realize that in them America has its greatest resources for the building of the "next great industry" — television, watch for their names after the war!

ADMIRAL * AIR KING—PATHE * ANDREA * ANSLEY * AUTOMATIC
AVIOLA * BELMONT * CLARION * CROSLY * DE WILD * DUMONT
EMERSON * ESPEY * FADA * FARNSWORTH * FREED-EISEMANN
GAROD * GENERAL ELECTRIC * GILFILLAN * HALLICRAFTERS * HAMILTON
HAMMARLUND * HOFFMAN * DETROLA * MAGNAVOX * MAJESTIC
MIDWEST * MOTOROLA * NATIONAL * NOBLITT-SPARKS * PACKARD-BELL
PHILCO * PHILHARMONIC * PILOT * RCA * REGAL * SCOTT * SENTINEL
SILVERTONE * SONORA * STEWART-WARNER * STROMBERG-CARLSON
TEMPLE * TRAV-LER * WELLS-GARDNER * WESTINGHOUSE

● RCA PUBLISHES A "WHO'S WHO" IN TELEVISION



FOR many months RCA has been keeping the public informed about television. This latest advertisement* . . . conceived by RCA and signed in a spirit of

cooperation by 46 radio and electronics manufacturers . . . is the farthest advance yet made in information, even naming manufacturers who will supply sets.

*Carried by 13 newspapers in the following cities: New York, Philadelphia, Baltimore, Washington, Chicago and Los Angeles.